THE Soybean Digest

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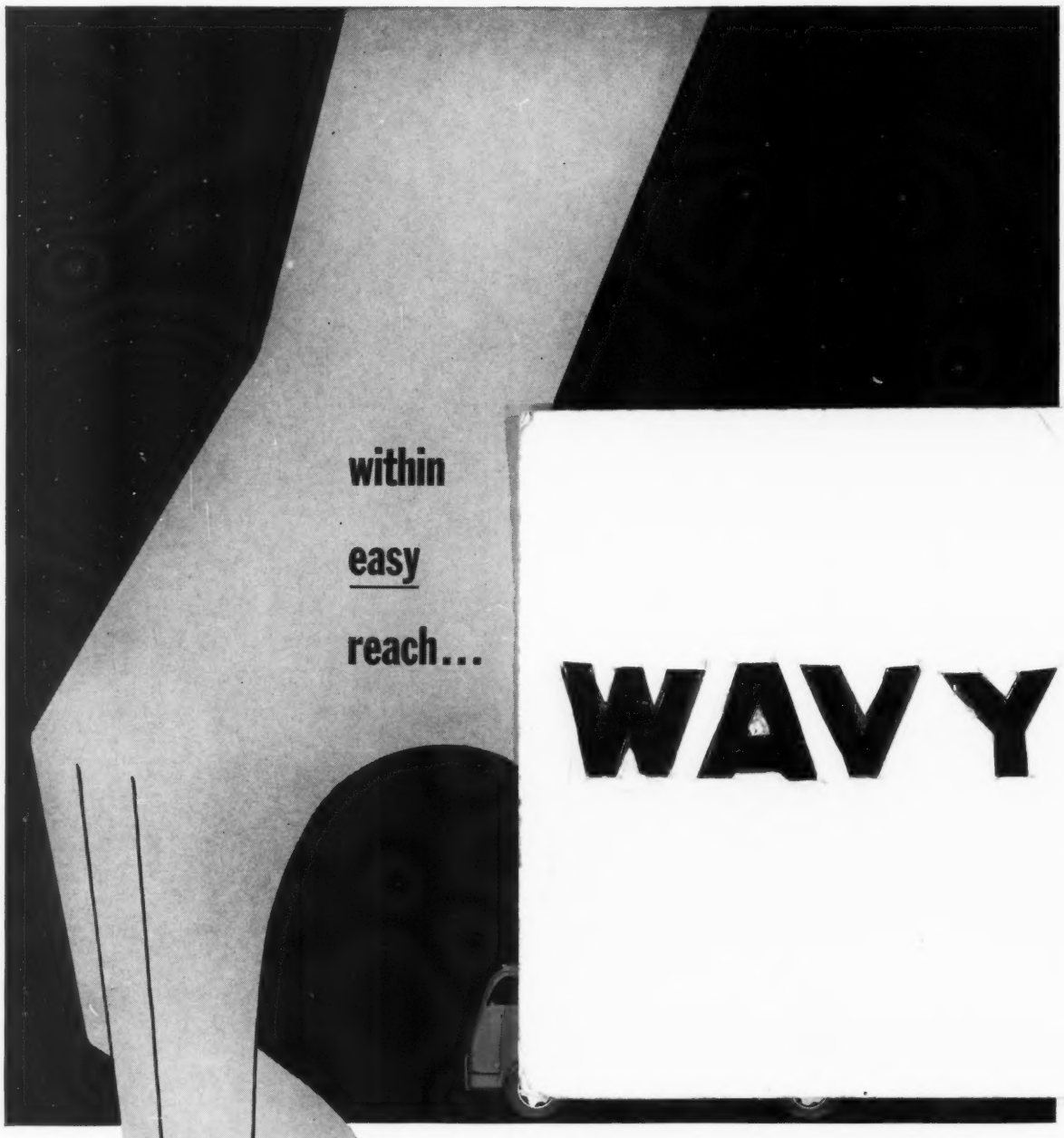
GATEWAY ELEVATOR shown above is one of two huge elevators constructed by the Chicago Regional Port District as part of its $24 million Lake Calumet development in anticipation of completion of the St. Lawrence Seaway. The modern 122-silo structure houses 6½ million bushels of grain and soybeans. Illinois Grain Corp., an affiliate of Illinois Agricultural Association, has leased the elevator. Opening of the Gateway Elevator has given the cooperative much larger facilities than it has had in the Chicago area to handle grain and soybeans from its five subterminal elevators on the Mississippi and Illinois Rivers. European ports will be brought much closer to Midwestern soybean producers and processors when the Seaway is open to ocean-going ships in 1959.

FEBRUARY • 1958

VOLUME 18 • NUMBER 4



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THE Soybean Digest

REG. U. S. PAT. OFF.

Official Publication of American Soybean Association and Soybean Council of America, Inc.

HUDSON, IOWA

Vol. 18 | February, 1958 | No. 4

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MANAGING EDITOR ..... *Kent Pellett*
BUSINESS MANAGER ..... *Geo. McCulley*
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Business, publication and circulation, Hudson, Iowa.

Advertising, Ewing Hutchison Co., 35 E. Wacker Drive, Chicago 1, Ill.

Published on the 10th of each month at Hudson, Iowa, by the American Soybean Association. Entered as second class matter Nov. 20, 1940, at the post office at Hudson, Iowa, under the Act of Mar. 3, 1879.

Forms close on 20th of month preceding.

Subscription rates—$5 per year; Canada and other members of the Pan American Union, $5.50 other foreign, $6. Single copies 50c. Subscriptions accepted from members only.

THE AMERICAN SOYBEAN ASSOCIATION

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Objectives of the American Soybean Association include the bringing together of all persons interested in the production, distribution and utilization of soybeans; the collection and dissemination of the best available information relating to both the practical and scientific phases of the problems of increased yields coupled with lessened costs; the safeguarding of production against diseases and insect pests; the promotion of the development of new varieties; the encouragement of the interest of federal and state governments and experiment stations; and the rendering of all possible services to the industry.

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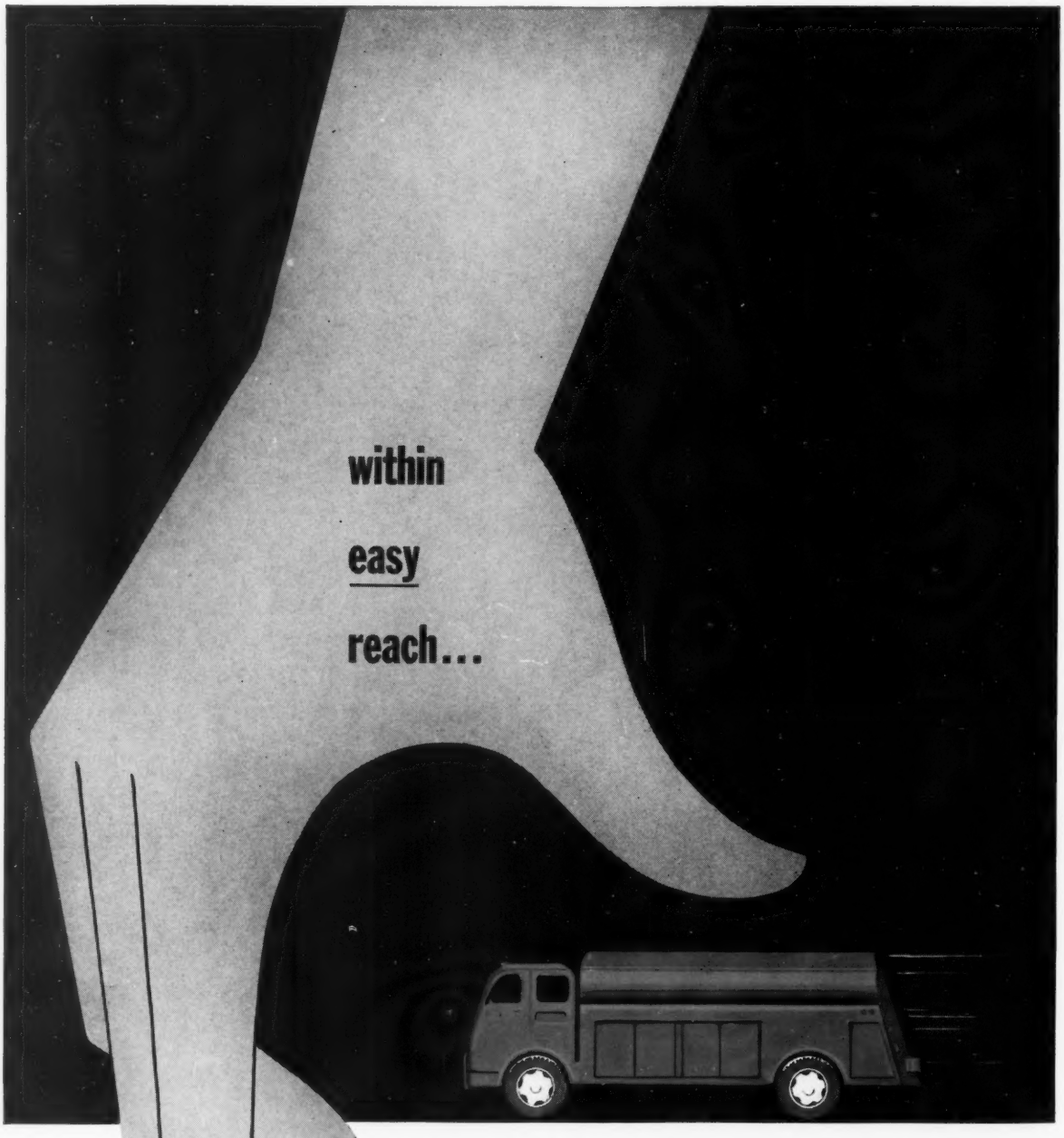

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EDITOR'S DESK

. . . By GEO. M. STRAYER

CAN KEEP SOYBEANS OUT OF TROUBLE

No action has yet been taken on 1958-crop soybean support prices. Since matters of relationships with other commodities are involved it is logical that decisions wait until the general trend of price supports for 1958 is known. Congress is considering proposed moves right now.

The board of directors of the American Soybean Association has asked that 1958 soybean crop support prices be set at not less than 70% of parity. This would be the same parity level as for 1957 crop, but would be adjusted slightly to allow for the change in parity scale for the last 10-year period. Latest information is that 70% of parity figures at the $2.09 per bushel level in effect the past year.

Our industry has been both fortunate and wise up to this point. We have kept our products moving because they were priced competitively. We have expanded our world markets because our commodity was both good and reasonably priced. We must stay in that position. At the same time the proper price relationships must be maintained with competitive fats and oils and protein products.

And we must not allow soybeans to be supported so high, as compared with other crops, that we stimulate soybean production beyond present levels. If soybeans are too attractive pricewise, we will have so many acres that we force CCC ownership, we become a surplus commodity, and soybeans no longer retain their attraction.

We as growers will be very foolish if we allow the one paying crop we have left on a free market basis to become just another surplus commodity. Let's not get greedy, keep supports at too high a level, stimulate production of soybeans, and kill the goose that lays the golden eggs! If it takes $1.95 soybean support prices for 1958-crop soybeans to keep us out of trouble—let's be smart and stay out of trouble!

DON'T CHARGE EVERYTHING TO AGRICULTURE

American Agriculture is in an awkward and undesirable position in Washington right now. We are being charged with the costs of programs which in reality have little or no relationship to agriculture, but which fall in the field of international relations and domestic health and education.

Under Public Law 480 all costs are assessed against Agriculture. For example, Spanish pesetas from the sale of products are being used to build airfields, build military housing and purchase commodities for which we would otherwise have spent dollars. Logically such costs are military costs—but they are being charged to Agriculture. Why should Agriculture buy military housing at new air bases? Purely and simply it is a military expenditure. Why not charge it to the Defense Department?

School lunch programs are charged to Agriculture. Should they be? Are they not in reality an expenditure of Health and Welfare? Then why do we allow ourselves to be charged with the costs of the school lunch program? Many other expenditures are in the same category.

Certainly our farm programs have cost money —much money. But let's be truthful and factual—let's charge these things where they should be charged—and let's immediately stop taking the rap for things which are in reality not our expenditures. It is time we start pointing out to our city cousins that the proper usage of food supplies in the preservation of world peace, to which we are dedicated, is becoming an inextricable part of State Department foreign policy and that some of the costs of preserving that peace logically belong elsewhere than as a debit against agriculture's account.

NEED MORE INFORMATION ON NEMATODE

Our crop has been a fortunate one in that there have been no major insect pests. There have been localized areas damaged by caterpillars and other insects, but we have never had a major damage over a wide area.

The soybean cyst nematode could change that picture. At this time there is no way to measure or estimate potential damage if the nematode is allowed to run rampant. It might or might not become a major pest. There is much we do not know about it—and little we do know about it at this stage.

We do know that we need much more survey work in certain areas to determine present areas of infestation. Present knowledge seems to indicate possible infestations upstream of the Mississippi that are not yet detected. Where are they? What is their extent? How long have they been present? What damage have they done?

What has been the effect of the soybean cyst nematode in areas where it has been present for long periods of time, such as in Japan? And Manchuria? Has it forced changes in soybean production? What other host crops may there be still un-

known to us? How long does it survive without a host crop being grown on a specific field? Are there any chemicals which can control it? Or even limit reproduction?

We need many answers not available today. The board of directors of the American Soybean Association has recommended full-scale warfare to control and stamp out the present known infestations, and to uncover any still undiscovered contaminated areas. It is urging state officials in all soybean production states to cooperate to the fullest extent. It is suggesting a full-scale study of the knowledge available in other countries.

FREIGHT COSTS HELP TO SHRINK EXPORT MARKETS

Freight costs are becoming a major factor in the exports of American agricultural commodities. The combination of rail freight increases from Midwest points to ocean ports and the increase in ocean freight rates now approximates 15¢ per bushel on soybeans or corn. Under present circumstances whatever increases accrue are deducted from the price of the product to the farmer. So, today the farmer takes 15¢ per bushel less for his crop—which is deducted from a far smaller price than when freight costs were at lower levels.

Friendly as we are to the railroads—and acknowledging that they have been a tremendous factor in the development of the agriculture and the industry of Mid-America—we cannot but wonder if they have not priced themselves out of the market. Certainly from the standpoint of agriculture they have done so.

Prices of soybeans, corn, wheat and other farm commodities are determined not by our own domestic demands, but by world price schedules. Certainly we are a factor in determining them. But when the German or the British buyer can purchase corn, soybeans, wheat or any other commodity elsewhere cheaper than he can buy from the United States, he buys elsewhere.

The farmer of the Midwest and Midsouth can produce soybeans more efficiently than they can be produced at any other place in the world today. Our rapidly expanding export market has been based on price and quality. Factors over which the farmer has no control—such as rail freight rates—are tending to undermine all the promotional work that has been done and price that producer out of world markets. It should not be. In the end it means the demise of American railroads as carriers of farm products. Let's face it.

The current increase, scheduled to become effective on Feb. 15, is but an example of many increases in recent years. It will add even more to the transportation costs incident to exports, soybeans, soybean oil and soybean oil meal.

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AMERICAN SOYBEAN ASSOCIATION

Joint Soybean-Wheat Project in Japan

TWELVE kitchen buses will be traveling the length and breadth of the Japanese islands during the next 2 years. And with each bus will be Japanese nutritionists to tell the housewives of the islands about the benefits of low cost meals including both American wheat and soybeans.

The project will be carried out jointly by the American Soybean Association, the Oregon Wheat Growers League and USDA's Foreign Agricultural Service. It is designed to expand consumption of wheat and soybean foods in Japan.

The project extends and expands the program launched in October 1956 by FAS and the Wheat Growers League in cooperation with the Japan Nutrition Association to demonstrate to the Japanese housewife the value of wheat in the diet.

They have had eight buses on the road giving printed and oral information on the benefits of balanced meals containing wheat foods. Now soybeans will be included and four more buses will be added. Three nutritionists and a driver will be assigned to each bus.

Housewives and other interested persons who attend will be told how to correct a diet low in protein through the use of soybean products. They will see simple, low-cost meals prepared in the mobile kitchens and will have a chance to sample them. And they will receive printed information on wheat and soybean foods.

Geo. M. Strayer, ASA executive vice president, signed the contract for ASA. The bus project will supplement other activities by FAS and ASA being carried on through the Japanese American Soybean Institute. It will be financed by FAS and the Japan Nutrition Association in yen, and ASA and the Oregon Wheat Growers League in dollars.

* * *

The ASA board has authorized and final arrangements have been made for participation by the Association and the Japanese American Soybean Institute in the International Trade Fair at Osaka, Japan, Apr. 12-27.

The organizations will have an exhibit of U. S. soybeans and soybean products at the fair, as they have the past 2 years.

Last year the fair was held in Tokyo.

SOYBEAN COUNCIL OF AMERICA, INC.

To Extend Spanish, Italian Projects

THE SOYBEAN COUNCIL of America, Inc., is now negotiating with USDA's Foreign Agricultural Service for 2-year extensions of the soybean market development projects in Spain and Italy.

Howard L. Roach, Council president, and Geo. M. Strayer, executive director, met with FAS officials in Washington Jan. 9-11 to discuss continuation of the two projects. Both the Spanish and Italian projects, which are sponsored jointly by the Council and FAS, were originally set up for a year. Both expired Jan. 30, and are now operating under temporary extensions while details for new contracts are being worked out.

The Council opened regional offices in Rome and Madrid in 1957, with general offices for Europe in Rome in charge of Dr. Fred R. Marti.

The Council's objective in its European program is to maintain and develop expanding markets for U. S. soybeans and soybean products in cooperation with FAS.

Funds for the projects come from both FAS and the Council. FAS utilizes foreign currencies made available to it through the sale of U. S. surplus commodities abroad.

Spain offers the largest potential market for U. S. soybean oil in Europe and also a possible growing market for livestock and poultry feeds.

Seven Spanish trade groups have signed contracts to participate in the market development activities for U. S. soybeans and soybean products in Spain. As a result of the Council's program there is a growing demand for both U. S. soybean oil and meal there.

In Italy, there is a great interest in expanding the livestock economy, and particularly the development of a poultry industry patterned after that of the United States. A growing livestock industry will require increasing quantities of protein, and soybean oil meal is a logical source of this protein.

Italian trade groups have shown interest in importing more soybeans, soybean oil and meal. And they appear willing to cooperate in the U. S. market development project for soybean products.

The Council has been negotiating with the trade fairs division of FAS in conjunction with the FAS grain division for a series of exhibits at trade fairs in Italy during 1958.

These will be cooperative projects featuring both protein concentrates and feed grains for livestock, and will probably be shown at a minimum of three trade fairs in Italy.

* * *

The Council will sponsor an exhibit of soybeans and soybean products at the Bombay, India, trade fair Apr. 15-May 15. The exhibit is a joint project with the trade fairs division of the U. S. Department of Commerce, will occupy 300 square feet in the U. S. agricultural pavilion.

The plan is for the same exhibit to be used later at fairs in Calcutta and New Delhi, India.

* * *

The Council has appropriated $6,500 for the support of the Institute for Nutrition Education for a year. The Institute, to be supported by all U. S. oilseed industries, will do educational and research work to develop the true facts concerning the relationship of dietary fats and oils to human health and to bring these facts to public attention.

The effort of the institute will be to clear up some of the confusion and misinformation concerning fats and oils now existing.

JAPANESE-AMERICAN SOYBEAN INSTITUTE

Offer "Green Buds," Japan Soybean Film

By SHIZUKA HAYASHI
Managing Director, Japanese American Soybean Institute, Tokyo, Japan

AS FAR as Japan's economic situation for the new year is concerned, unless there are world political and economic affairs that may be influential enough to affect Japan, no drastic change in the present business situation may be expected. Japanese businessmen will have to make plans within the budget frame drawn up by the Japanese government. Imports of soybeans will definitely have to be planned within and

in accordance with the annual budget, unless other means are worked out. Competition between U. S. soybeans and Chinese soybeans will eventually be within the budget. It is hoped that all conditions will favor U. S. soybeans.

Soybean Film

The "Green Buds," a beautiful soybean movie film scripted and produced under the direction of the Japanese American Soybean Institute, is the first soybean film to be screened in Japan. This is a documentary 35 mm movie film in technicolor having a total length of 3,000 feet with sound track in Japanese. It has just been completed by Shin Riken Motion Picture Co., one of the best movie producers.

It covers the story of soybeans which had been selected by a grammar school class as a special subject to study. Early in the spring seeds were planted by the school children and the whole progress has been carefully observed beginning with the sprouting of the beans which is impressively taken by slow motion, and the opening of beautiful flowers, the bearing of bean pods, and in late autumn the final harvest. During summer vacation the whole class takes a trip in the country where soybeans are actually grown in the fields. The children also visit various farm houses to see how soybeans are manufactured into shoyu, miso, tofu, kinako, etc., and also to inspect a modern processing plant where soybean oil is extracted and bottled for salad oil. They also visit a village where quite a number of aged people are working even at the age of 80. Their longevity, the children are taught, is due to the habit of eating soybeans in their daily diet.

Those who have seen the picture are all impressed. Reprints of 16 mm film will be produced and whenever occasions arise will be shown to the public. The films also will be loaned to any groups who are interested. Plan is now under consideration to put an English sound track on so that the film can be shown in the United States.

Miso Manufacturers

Under the auspices of the Japanese American Soybean Institute a meeting was held in Tochigi city where representatives of about 40 outstanding miso manufacturers in the Tochigi area were present. The aim of this meeting was to promote more use of U. S. soybeans by the miso manufacturers.

Dr. A. K. Smith, scientist from the Northern Regional Research Laboratory, also attended the meeting and gave a lecture on isolated protein. Dr. Ebine of the food laboratory, Ministry of Agriculture, also gave a lecture on the fermentation of soybeans.

Some of the important problems discussed are on foreign material included in U. S. soybeans. This is claimed to be very difficult to remove before preparation. The flavor of U. S. soybeans after cooking is claimed by most of the manufacturers to be not as good as that of domestic or Chinese soybeans. This is a very delicate matter which should be taken up scientifically by the experts concerned. It is the request and the hope of all the miso people that beans of specific variety most suitable for miso making be selected on which future business can be concentrated. Emphasis was made during the meeting by the staff of this Institute on the fact that U. S. soybeans contain more protein than the Chinese soybeans and that the impression of Chinese soybeans being superior because of more protein content should be corrected. The establishment of a specific variety most suitable not only for miso but also for tofu making is to be seriously studied. Once this is put into practice and business becomes possible on that basis the Japanese impression that Chinese beans are preferable will disappear.

Miso manufacturers unanimously agreed on the preference for whole soybeans to meal and whenever possible they use whole soybeans. This they explain is due to the fact that the flavor or the taste of miso manufactured by using 100% of whole soybeans is far more palatable than miso manufactured with soybean meal mixed with soybeans.

Canada an Important Customer for Soybeans

GRAIN FARMERS who think of Canada only as an exporter of cheap, coarse grains should be thinking of that country as an important customer as well.

C. P. Schumaier, University of Illinois agricultural economist, points out that soybean sales to Canada are increasing. He estimates that during 1957 they have totaled about 10 million bushels, more than double the volume of 3 years ago.

Canada is also buying our corn, Schumaier points out.

Although our imports of Canadian grains, rye and feed wheat, will run a greater bushel volume than our exports, corn and soybeans are much higher value crops and make the dollar value of our grain trade more nearly equal than the bushel volume.

Schumaier feels that present U. S. quotas on Canadian coarse feed grains may not be in the best long-run interests of farmers. They might some day be used as a bargaining weapon to impose Canadian quotas on our corn and soybean exports, both much higher value crops to farmers than coarse grains.

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The Midwest's Mortgage Lifter

From Mr. Pogeler's address at the opening of the Halstad, Minn., soybean plant

By **GLENN POGELER**
North Iowa Cooperative Processing Association, Mason City

THE SOYBEAN processing industry of the United States is one that has rapidly taken its place in the economy of the United States.

During a span of approximately 30 years, we have come from the first soybean processing plant to our present yearly crushing capacity of nearly 360 million bushels. Today, there are about 200 plants in the United States crushing soybeans.

The investment in facilities will total several hundred millions of dollars. Like many other industries, machinery and equipment is continuously being modernized and brought up to date. This continuous program calls for a never-ending stream of dollars being invested in the industry.

In addition the processing industry furnishes year-round employment for many men. Most processing plants run 24 hours a day, 7 days a week for about 50 weeks a year.

The soybean crop of 1957 was the record breaking crop of history. Last year's crop was estimated on Dec. 17 at 480 million bushels.

The world's production of soybeans has risen from 463 million bushels in 1935-39, at which time we produced 56 million bushels, to 1956, when the world crop was estimated at 839 million with the United States contributing 455 million bushels. We now produce here over one-half the world's supply of soybeans.

Minnesota Prominent

The state of Minnesota, which is famous for its lakes, football teams, dairy cows and wheat, now has a cash crop that is elbowing its way to a position of prominence in the farmers pocketbook. In 1956, you produced 52 million bushels and were in second place among the states. Matter of fact, you left Iowa in the shade since it was in fourth place. In 1957 Iowa went back into second place.

Minnesota production has risen from 30,000 bushels in 1934 to 52 million in 1956 which is a tremendous increase. The latest estimate of Minnesota production for 1957 is 54.8 million bushels.

It seems that many farmers have quit throwing milk pails at soybeans and have switched to raising them.

The U. S. soybean crop last year brought American farmers slightly over $1 billion. Truly, a billion-dollar crop must be recognized as a very important contribution to our national economy. Cash that is received by farmers each fall for soybeans is used to pay many bills due in the fall, as well as to help make the Christmas season brighter on the farmstead.

The value of soybeans as a seed is limited and it only begins to be converted into its valuable products at the oilseed mill. Soybeans are separated into two fractions—soybean oil and soybean oil meal. Soybean oil represents about 20% of the bean and soybean oil meal the balance of 80%.

Soybean oil must be refined, bleached, deodorized and hydrogenated as a part of the oil processing routine. Products made from soybean oil, of which about 85% is used for human consumption, are as follows: margarine, shortening, cooking oil, salad dressing, mayonnaise, sandwich spread and pharmaceutical products. In the technical field oil is used in paints, ink, wallboard, oilcloth, lubricating oils and many other uses. Soybean lecithin, an extract from soybean oil, is consumed in increasing quantities as a health food, and in many food products and in the medicinal trade. The list of products made from oil is much longer than those listed above.

Soybean oil meal is the No. 1 pro-

OFFICERS and board of directors of the soybean plant of the Halstad (Minn.) Elevator Co.: front row, left to right, Erwin Warner, president; Harris Henderson; and Bennitt Aarestad, secretary. Back row, Neon Helgoe, Walter Olson, Truman Thompson and Earl Oien.

tein supplement in use today. If this year's crop of soybeans were all converted into soybean oil meal, we would have a supply of 12 million tons. Over 95% of all the soybean oil meal produced in the United States is used for feed. Without this supply of high quality protein, we would not be able to efficiently do the job of producing meat for this nation.

Of all the protein concentrates produced here, soybean meal represents over one-half of the total. In relation to linseed meal, we produce 13 tons of soy to one of linseed. Truly, this nation has been blessed with the versatility of the soybean crop.

Many processors in the United States, and you are one of them, belong to the National Soybean Processors Association with executive offices in Chicago. This Association, which has 58 processor members, represents about 95% of the U. S. crush. Even though we are members of one Association, we are competitors in the finest sense.

The mad scramble for a raw material supply and customers for the finished product goes on daily.

This Association has its president's office located in Chicago. We also have a Washington representative as well as a man to head up our crop improvement program. As an Association, we have spent many thousands of dollars to expand the soybean crop. The industry can only be of value to the farmers when the mills are running and producing products for the consuming markets.

Work for Markets

We have constantly worked for the expansion of the consuming markets here at home and overseas. We have supported and encouraged the Soybean Council of America, which is actively engaged in the work of promoting soybeans and soybean products in Asia and Europe.

As an Association, we are constantly in touch with the Washington situation and it certainly takes many man hours daily to keep abreast of the moves the politicians make.

As a director of the Association for a number of years, I can tell you that processors are interested in good financial returns to growers for soybeans and firmly believe that this can only be achieved through the markets for the products. Please remember that the government does not consume any products, it only accumulates and stores them. "Production for Consumption" should be our keyword.

Since 1943 the farmers of the Midwest have banded together to build and operate processing plants at the following locations. These plants are operating at the present: Dawson, Minn.; Halstad, Minn.; Grand Forks, N. Dak.; Alhambra, Ill.; Dike, Iowa; Eagle Grove, Iowa; Mason City, Iowa; Ralston, Iowa; Sheldon, Iowa; West Bend, Iowa; Girard, Kans.; Henderson, Ky.; Mexico, Mo. There are other plants that occasionally crush soybeans in the cottonseed crushing mills.

The cooperative soybean processing plants can crush about 12 million bushels a year. This is about 5½% of the U. S. crush. These plants generally supply an area near the mill with soybean oil meal and procure their soybean supplies within trucking distance of the plant.

These soybean processing plants have worked closely with the cooperative cottonseed oil mills and have met jointly with the cotton mills in annual conventions for several years.

The cooperative oil mills of the United States have been a market factor even though their total crush yearly is small as compared to the annual United States crush.

Before I conclude, may I give you my impressions of the future prospects for soybeans?

Many experts in the soybean business as well as government officials feel that we will increase production to over 800 million bushels in the next 15 years.

The experts predict the supply of meal from this gigantic crop can be consumed at home.

Part of the oil supply will have to find a home overseas. This fraction of the processing of the soybeans appears to be in oversupply for the domestic market.

All of these projections point up to the job at hand. You farmers will produce the raw material. We processors, consumers of products and exporters, will have a big job of merchandising ahead for all of us.

Kaiser Sales Manager

L. J. Kaiser has been appointed sales manager for the R. J. Brown Co. He was formerly Louisville division manager and more recently assistant sales manager with headquarters at the St. Louis office.

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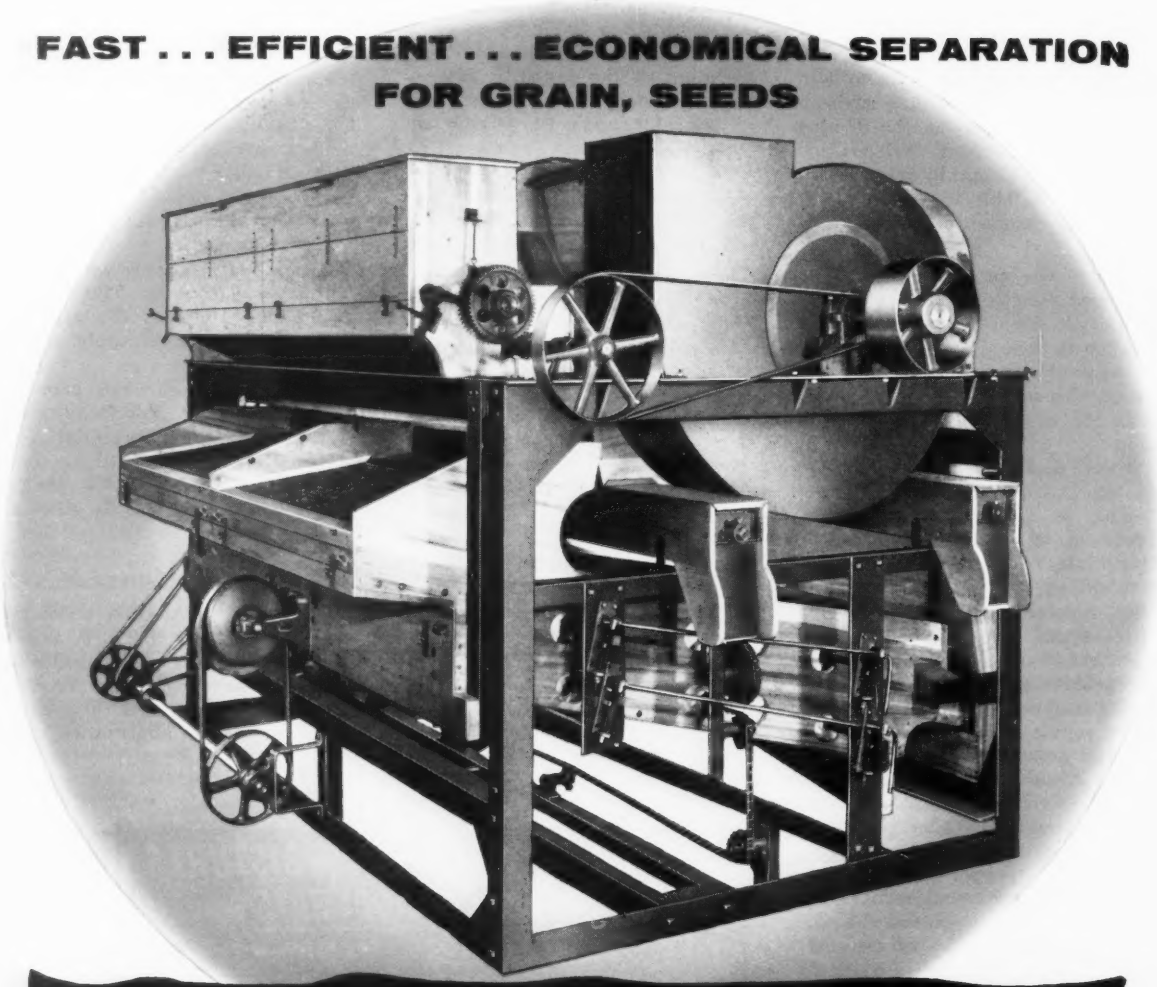

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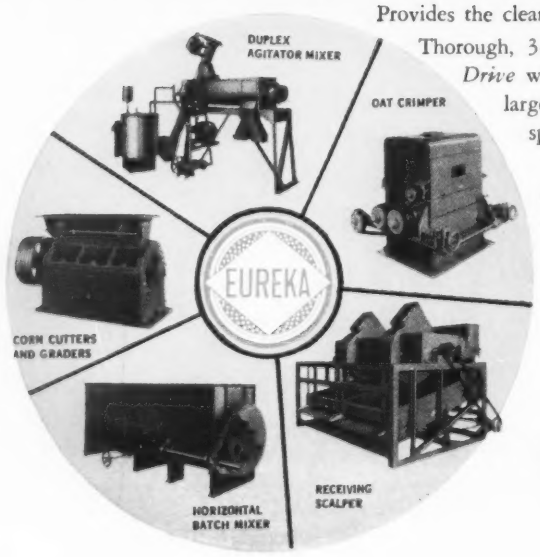

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Write for FREE Bulletin 180-B showing complete line of Eureka cleaners, specifications, and installation diagrams.

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THE NEWS IN BRIEF

CROPS, MARKETS AND OTHER ITEMS OF NOTE

This issue introduces to our readers "The News in Brief," which will be made up at the last possible minute before press time to include the latest information.

Together with "Washington Digest," by Porter Hedge, "In the Markets" section in the back, and a monthly crop report during the growing and harvesting season, "The News in Brief" will be part of the continuing earnest effort of your editors to provide the most complete and thorough coverage of the soybean crop and markets and soybeans generally to be had anywhere.

Late News, which has appeared in these pages, will no longer be part of the Soybean Digest. It will be mailed only to its subscribers.

We believe this change will improve service both to Digest and Late News readers.

—The Editors.

Freight Increase Postponed

A general increase in freight rates that would apply to all soybeans and soybean products has been postponed from Feb. 1 to Feb. 15.

The increases, asked by all Class I railroads and some smaller roads would include:

1—A flat increase of 6¢ per 100 pounds to apply to packaged materials including bagged soybeans and meal, also to bulk soybeans and grains not going through export ports, in addition to other rate adjustments of from 2¢ to 4¢ per 100 pounds to apply to all soybean products.

2—An increase in demurrage charges on export freight at ports to $3 per car per day. Demurrage varies at different ports at present.

3—Reduction of free time at ports to 4 days. At present, free time (before demurrage starts) varies from 7 to 15 days according to the port.

The increases in freight rates are opposed by the American Soybean Association, the Midsouth Soybean and Grain Shippers Association, and other producer and shipper groups.

Oil Content Not Quite So Good

Oil content of 1957-crop soybeans is not quite so good as earlier reported, processors tell us. An Iowa report is that oil content to date is running ⅓% under last year. Illinois and Ohio reports are that oil content is those states is fully equal to last year.

The lower oil content in later harvested beans may be due to higher moisture content, also oil content may be down in later planted, later harvested beans. And one processor thinks late harvested beans may have lost some oil in the field.

Some Beans Never Harvested

About one-fifth of the 1957 soybean crop in Virginia still remains in the field and **will be abandoned,** according to the Weather Bureau. Some combining was attempted late in January but the beans shattered badly, though the Lee variety stood up better than Ogdens.

Scattered fields were still unharvested in a number of other states.

Some High Moisture Beans

Of more importance at this time are reports of **high-moisture-content beans in storage.** John W. Evans, Montevideo, Minn., says some elevator stocks of soybeans are heating.

And Arthur E. Frank, Dannen Mills, St. Joseph, Mo., reports that 50 samples of soybeans from his county at the inspection office ranged in moisture content from 13% to 20%.

Meal Production Up a Little

Production of soybean oil meal for the first quarter (October-December) was 1,998,700 short tons compared with 1,932,000 short tons for the same period a year ago, according to Agricultural Marketing Service. **Production of all oilseed meals was down a little,** 3,009,000 tons compared with 3,108,100 tons for the same period a year ago.

Canadians Want Tariff On Beans

The Ontario Soya-Bean Growers' Marketing Board representing Canadian producers on two recent occasions has asked for a **duty on U. S. soybeans imported into Canada.** The group requested that any federal legislation passed should realize $3 a bushels for soybeans to Ontario growers.

The Board News Letter points out that Canada consumes soybean oil and meal equal to the product of 12 million bushels of soybeans, double the present Canadian crop.

Canadian imports of soybeans in the 1957-58 marketing year are forecast by trade sources at around 7 million bushels compared with 9.8 million bushels in 1956-57, according to USDA's Foreign Agricultural Service.

This expected decline is due to the increase in Canadian production of soybeans (6.5 million bushels in 1957 compared with 5.3 million bushels in 1956) and decreased export demand from Europe for Canadian meal and oil. This latter in part is due to ample imports of U. S. soybeans into Europe.

Canadian oil mills are expected to crush 10% to 15% fewer soybeans than the 13.5 million bushels crushed last year. Canada exported a record 44 million pounds of soybean oil and 257,000 short tons of soybean oil meal in 1956-57, part of which was derived from U. S. soybeans processed in Canada.

Stocks of Soybean Oil Up

Factory and warehouse stocks of soybean oil as of Dec. 31 totaled 406,006,000 pounds, **up 31.5 million pounds from Nov. 30 and almost double stocks of a year ago,** the Bureau of the Census reports.

World production of fats and oils in 1957 is estimated by USDA's Foreign Agricultural Service at 30.6 million short tons, a **record high for the fourth successive year.** It exceeded output in 1956, now estimated at 29.2 million tons, by 5%. Per capita output in 1957 was roughly 5% higher than prewar.

Japanese Short of Soybeans

The Japanese soybean consuming industry is said to be running short of imported soybeans, according to our sources. Tofu factories and miso breweries are both said to be low on stocks.

The situation is due to the reduced budget for imports set by the Japanese government in an effort to balance imports with exports and conserve dollars.

Planned purchases of soybeans for dollars are down almost 25% this year.

Japan's export of soybean oil in 1957 totaled 22,882 metric tons valued at $7.2 million compared with 5,312 tons valued at $1.5 million the year before. Soybean oil exports in December from Japan were to Hong Kong, Malta and the Netherlands.

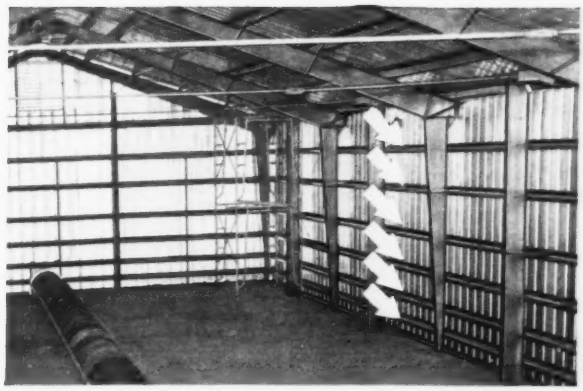
Prices for oilseeds and fats and oils, cif Rotterdam and Hamburg, week of Jan. 25
(dollars per metric ton)

Philippine copra	January and February	190 @ 192
Chinese peanuts	Afloat	193.20
Nigerian peanuts	February and March	168
U. S. soybeans	Afloat	90.50
U. S. soybeans	February	92.25
U. S. soybeans	March	93.25
U. S. soybeans	April	94.50
U. S. soybeans	November	89 @ 89.70
Bulgarian sunflower seed	February	112
Nigerian palm oil	April and May	240.80
Danish soybean oil	Prompt	285.60
South African sunflower oil	Prompt	296.80 @ 299.60
Peanut oil	March and April	322 @ 332
U. S. menhaden oil	January and February	202
Linseed oil	January	262.50 @ 265
Linseed oil	July	267.50 @ 270.50

Reported by Albrecht H. Zetsche, Hamburg, Germany.

Butler guide to safe flat storage

An ordinary building just won't do. Choose one specially engineered for grain storage—built by a company which knows grain storage problems. Note how the basic structure above—nearly ready for paneling—provides vertical steel support every ten feet, clear around the building.



Extra horizontal support is important too. Steel Z-girts, bolted to the verticals, should be closely spaced to further strengthen sidewalls against the tremendous pressures grain builds up. Butler grain buildings contain at least three times as many Z-girts as Butler's heaviest industrial building.

This you know: structural strength alone won't protect grade. Your cover must be tight, must seal moisture and vermin out. Cover panels must be die-formed to assure perfect fit, should double-bolt to every purlin and girt they connect to—with weathersealing compound applied between each panel lap.

You should be able to order your building in exactly the size you need. It should be easy to load and unload . . . economical to expand. And your building should have features that will let you use or lease it profitably for other purposes, should your future practices change.

They say your grain is only as good as the building you keep it in and this makes a new flat storage building something special. So rather than take chances with *your* profits, follow the Butler Guide to Safe Flat Storage. Better yet, buy a Butler building because this guide—as you might suspect—is based on the actual construction of the building that outsells all other makes . . . a Butler. Strength is built right into it, from the strong steel frames to the tough, die-formed cover. It is a building especially designed and engineered for its job by people who really know the grain storage business. Like a catalog about this "finest flat storage structure in the world"? Ask your Butler Builder, listed under "Buildings" or "Steel Buildings" in the Yellow Pages of your telephone directory, or write us direct.

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Fertilize Soybeans for Maximum Profits

Dr. Keim says every producer should aim at 40 or more bushels per acre. Building up the soil's fertility level is a necessary step toward that goal

By MYRON M. KEIM
Head Agronomist, Virginia-Carolina Chemical Corp.

DURING the past 20 years, average soybean yields in the United States have increased from 14 bushels per acre in 1936 to 21.8 bushels per acre in 1956, or more than 50%. Progress of this magnitude reflects the use of fertilizer which has more than tripled during this same period. The increasing importance of the soybean crop demands that we recognize the fertility requirements of soybeans if maximum yields are to be obtained.

Soybeans are less responsive to direct fertilizer treatments than are other farm crops such as corn, wheat, and cotton. Thus, the impression has been created that it doesn't pay to fertilize soybeans. This is far from the truth, except on highly fertile soils or where preceding crops in the rotation have been liberally fertilized.

A great number of soils are lacking in fertility and are producing low or only moderate yields of beans. It is under these conditions where fertilizers can be used most advantageously to insure high yields and increase profits from this important crop.

Plant Food Requirements

A 40-bushel yield of soybeans contains, in the grain alone, 150 pounds of nitrogen, 35 pounds of phosphorus (P_2O_5), and 55 pounds of potash (K_2O). Thus, a soybean yield of this size removes as much phosphorus and more than twice as much potash as 100 bushels of corn. Two tons of soybean hay contain 90 pounds of nitrogen, 20 pounds of phosphate, and 50 pounds of potash. When grown on soils that will not supply plant nutrients as needed, soybean yields will be decreased accordingly.

Balanced nutrition is essential for maximum soybean yields. On acid soils deficient in phosphorus and potash, a mixed fertilizer containing both phosphorus and potash produces much higher yields than either one applied alone. Progressive farmers striving for top yields have used mixed fertilizers advantageously.

It is interesting to note from a recent Purdue publication that 793,402 acres of soybeans were fertilized in Indiana in 1954. This represented 41% of the acreage harvested. Of the acreage fertilized, soybeans received an average of 163 pounds of fertilizer containing 24 pounds of P_2O_5 and 26 pounds of K_2O per acre.

Soil Tests

Every soybean grower should have his soil tested and plan his fertility program accordingly. There is little reason to guess about the lime and fertilizer requirements of the soybean crop. Soil tests can be the best investment a farmer can make.

Lime the soil as indicated by soil tests. Although soybeans do not require as much lime as alfalfa, sufficient limestone should be applied to satisfy the requirements of all crops in the rotation. This will normally be a pH of about 6.5 on most soils, but on dark poorly drained soils, it may be advisable to stay below pH 6.3 to avoid manganese deficiency. Liming with dolomitic limestone is a satisfactory way of supplying needed magnesium.

Liming

Liming is especially important for soybean production. Some of the benefits attributed to adequate lime are:

Increases the fixation of atmospheric nitrogen by bacteria in the nodules on the roots of soybean plants.

Supplies essential plant foods — calcium and magnesium.

Increases the availability of fertilizer and soil phosphate.

Reduces manganese toxicity.

Benefits other crops in the rotation.

Inoculation is always good insurance in growing soybeans. Being a legume, this crop contains nodules on its roots in which bacteria are able to take nitrogen from the atmosphere and change it into forms which the soybean plants can use. However, these miniature nitrogen factories, so important for high soybean yields, are made ineffective on strongly acid soils.

SOYBEANS are less responsive to direct fertilization than some crops. But fertilizers can be used advantageously, particularly on soils of low fertility. Beans at right are untreated, those at left received complete fertilizer treatment. U. S. Regional Soybean Laboratory photo.

Phosphorus and Potash

Phosphorus fertilizer, on low-phosphorus soils, gives young soybean plants a faster start. This helps overcome the weed problem by making possible quicker cultivation. Rapid early growth and the hastening of maturity are especially important where soybeans are planted late as the second crop after small grain harvest.

Phosphorus starvation is normally indicated by stunted and slender growth. Adequate phosphorus helps overcome deficiency by producing full growth and top yields.

A sufficient supply of potash is often one of the most important keys to high and profitable soybean yields. A potash deficiency is often indicated by the following symptoms:

Brown leaf margins, with perhaps uneven edges later on in the season.

Slow maturity and delayed defoliation.

Soybean pods fail to fill and mature normally.

Discolored and shriveled seeds of poor quality.

Reduced yields.

Soybean yields are often considerably reduced by a potash deficiency even before symptoms are noticeable. Therefore, it is unwise to wait for potash deficiency symptoms to appear before applying fertilizer.

It is apparent from the above chart that maximum net returns were obtained when money was spent for lime, phosphate, and potash. A soil test will help determine what combination of these three important essentials are required for any particular condition.

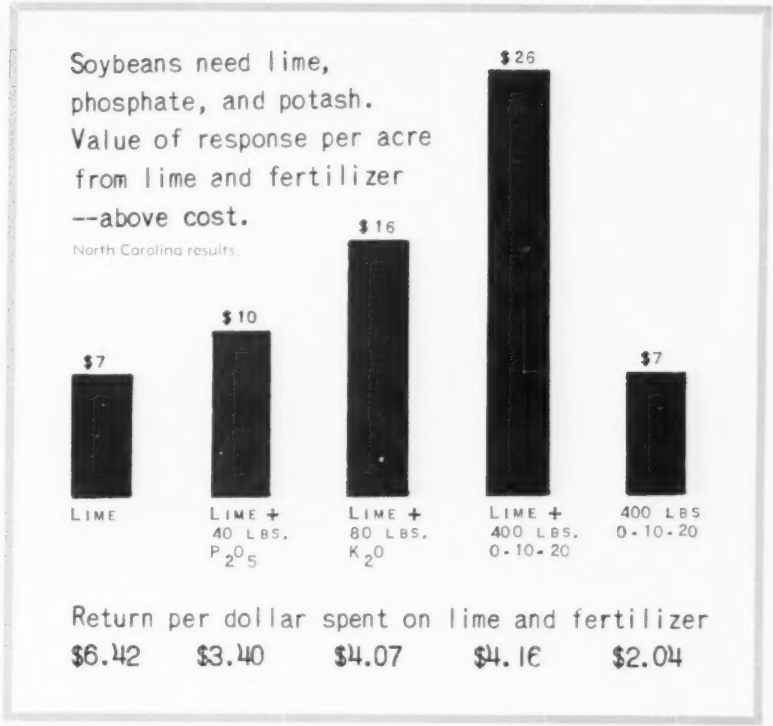
Adequate fertilization of soybeans, as recommended by the various agricultural experiment stations can mean producing additional soybeans for considerably less than $1 per bushel. It also provides an opportunity for realizing an additional $10 to $20 profit per acre. As the yields go up, cost of production per unit is decreased.

For Maximum Profits

The goal of every soybean grower should be to produce 40 bushels or more of good quality soybeans per acre. Important steps to follow in achieving this goal are:

Test soil and apply sufficient limestone to correct acidity to approximately pH 6.5.

Build up fertility level of the soil by applying phosphate and potash as needed, sufficiently for growing 80 to 100 bushels of corn or 40 to 45 bushels of wheat per acre.



Inoculate seed each year soybeans are planted.

Choose adapted soybean varieties recommended by your agricultural experiment station.

Fertilizer Recommendations

Soybeans have the ability to produce some yield at low fertility levels and are sometimes referred to as a "poor land crop." Because soybeans often benefit from residual fertilizer and can pick up plant foods applied previously, they are noted for being good plant food "scavengers." Both of these factors, while advantageous, have misled many farmers into believing that soybeans do not require, or would not benefit from, direct fertilization. However, fertilizing soybeans pays handsome dividends under many conditions.

Most states suggest fertilizer for the soybean crop when the soil tests low in phosphorus or potassium. If only small amounts of fertilizer, ranging from 100 to 200 pounds per acre, are to be applied, then row fertilization with safe placement equipment would be preferred.

When larger applications of fertilizer are required than can be safely applied near the row, which is perhaps 150 to 200 pounds per acre, then it is advisable to broadcast some fertilizer ahead of planting.

Rotational Fertilization

When and how farmers apply fertilizer for soybeans may depend on the crop rotation, machinery on hand for safe fertilizer placement, and labor and capital available. Farmers who have built their soil to a high fertility level and are fertilizing to strive for 80 to 100 bushels of corn or 40 to 45 bushels of wheat per acre, etc., may prefer to let their soybeans eat at the second table. In this case, they are actually fertilizing the soybean crop by liberal additions to the other crops in the rotation.

Row Fertilization

Row fertilization of soybeans is recommended by most states for soil comparatively low in available phosphate and potash, and where a relatively small amount of fertilizer is to be applied per acre. This method is practical and beneficial when fertilizer is applied safely and efficiently with proper equipment. Soybeans are more sensitive than corn to salt injury from fertilizer and therefore *application should never be in direct contact with the seed.*

Preferred placement for row fertilizer is in a single band about 2 inches to the side and 2 inches below the seedbed, where the fertilizer is placed in moist soil, away from the seedling, but where feeder roots can reach the plant food very soon after germination.

Row fertilizers for soybeans normally contain phosphate and are comparatively high in potash. Some states recommend a complete mixed

fertilizer containing a small amount of nitrogen. This nitrogen is most important on low fertility soils to give soybeans a good start before their root systems and nitrogen-fixing relationships with nodulating bacteria have been established. Because nitrogen does promote weed growth, it is customarily omitted from soybean fertilizer broadcast ahead of planting.

The amount of fertilizer normally recommended as a row fertilizer for soybeans ranges from 150 to 200 pounds per acre. Additional amounts should best be broadcast ahead of planting.

Profits From Fertilization

Like all farm crops, large soybean profits are the result of high yields. Dollars invested in soybean fertilizer pay handsomely when applied to soils low in fertility. This principle is illustrated by the following data from North Carolina:

Plant tested seed in rows as close together as planting and cultivating equipment will allow. A good stand is important for top yields.

Apply 150 to 200 pounds per acre of mixed fertilizer comparatively high in potash to the side and below the seed at planting time. Never allow fertilizer to come in direct contact with soybean seed.

Broadcast 200 to 500 pounds per acre of fertilizer ahead of planting on low fertility soils or where need is indicated by soil test.

Manganese and iron deficiencies may be corrected by spraying plants directly with manganese or iron sulfate.

Control weeds by working fields early and use a rotary hoe after planting when weed seeds begin to germinate.

Save all the beans you grow by careful harvesting.

Gibberellin Valueless

GIBBERELLIN, the wonder treatment that has produced some amazing results on ornamental and vegetable plants, has shown no effects on soybeans.

R. W. Howell, plant physiologist with the U. S. Regional Soybean Laboratory at the University of Illinois, reports that 1957 tests included seed treatment and sprays on growing plants. Neither showed any indication of possible commercial use for gibberellin on soybeans.

Some further tests are planned for 1958 to confirm 1957 findings.

Results of Fertilizer During Bloom

By L. M. HUMPHREY
Robert L. Dortch Seed Farms, Scott, Ark.

RESULTS OF fertilizer experiments on soybeans have been rather inconclusive. We wished to learn whether applications of certain fertilizers at time of first blooming would have any significant effect on yields. The Olin Mathieson fertilizer company was also interested in obtaining this information and agreed to supply the fertilizer. A demonstration type test was set up using 8 row plots, 20 chains long with no replications. A uniform section of a 75-acre field of Dortchsoy 2A soybeans was selected for use. Soil was mixed very fine sandy loam and silt loam.

The fertilizer treatments were as follows: check; 100 pounds 6-24-24; 200 pounds 6-24-24; 200 pounds 13-13-13; 400 pounds 13-13-13; check. These treatments were then repeated and in addition 60 pounds of N was applied as anhydrous ammonia. All the fertilizer was put on as a side dress and cultivated immediately afterward. This was done on July 19. On July 23, 1.53 inches of rain fell and on July 30, 2.08 more fell. This was followed by 3.37 inches in August and 3.51 in September. This rainfall and mild temperatures provided ideal weather for the growth of soybeans and a very good crop was the result.

The results of the demonstration are presented in the table. It would appear that any differences between treatments are too small to be conclusive in a test of this kind. What differences exist might favor the heavier applications of mixed fertilizer, and also favor the addition of extra nitrogen. However, the increases shown in the table will not justify the extra cost of the fertilizer.

SOYBEAN FERTILIZER EXPERIMENT

8 row plots, 20 chains long. Fertilizer applied July 19 at first blooming.

Fertilizer	No nitrogen	60 lbs. N as anhydrous ammonia	Average
Check (None)	40.0	.....	.....
100# 6-24-24	37.9	40.7	39.3
200# 6-24-24	44.0	41.8	42.9
200# 13-13-13	40.2	41.5	40.8
400# 13-13-13	43.1	43.4	43.2
Check	38.8	43.6	40.8
Average	40.6	42.2	.....

New Nodogen Plant Growing Room

NODOGEN LABORATORIES has just added a completely new "greenhouse," or plant growing room, to its laboratory facilities. Results have been so satisfactory that the former conventional greenhouse has been discarded.

The room was designed and constructed under the supervision of Dr. A. A. Hendrickson, director of research and production, shown in the picture. Light, temperature, humidity and filtered air are automatically controlled for optimum plant growth, permitting year around research.

The new "greenhouse" will greatly facilitate Nodogen's expanding program of research and development, as well as its unique pre-testing system of quality control on each lot of culture produced.

Above, Dr. Hendrickson is watering test plants in the new "greenhouse." The excellent growth of many species of legumes is self-evident under the batteries of lights.

CAVINESS is separating soybeans from a batch of Lee variety that have mutated to blacks.

LEE SOYBEANS showing dark hilums with black beans intermingled. This black hilum variety has a high mutation rate to self blacks.

Best Results from Light Hilum Beans

SOYBEAN GROWERS could expect fewer off-color beans if they planted varieties which have clear or light hilums, C. E. Caviness, junior agronomist with the University of Arkansas' Agricultural Experiment Station, told seed dealers at a recent meeting on the University campus.

He went on to say plant breeders at the Agricultural Experiment Station are trying to isolate lines of soybeans which will not throw any off-color seedcoats, as he showed slides to illustrate common seedcoat color variations in soybeans.

Yellow varieties have become popular in recent years because varieties with green seedcoats are objectionable in some foreign markets where the whole bean is used for human food. Since the cotyledon is yellow in both green and yellow seedcoated varieties grown in Arkansas, no preference of beans for oil purposes has been noted. He pointed out that yellow varieties at times may have a greenish tinge and that immature soybeans may be light green.

Although only a few seeds of black beans may be present in a sack of yellow beans the color difference is striking and undesirable "When you see this condition your first impulse may be that seeds have been mixed in the field; however, upon closer examination you may notice that the seeds are of the same variety only black." This spectacle is rather common in soybean varieties with a black hilum. Black-hilum beans seem to mutate to blacks more often than do those with a lighter colored hilum, or it may be that the black is more noticeable, he explained.

Some seeds throw more blacks than do others. With extensive production of Lee, which has a black hilum, off-color beans are very noticeable in some instances, he said.

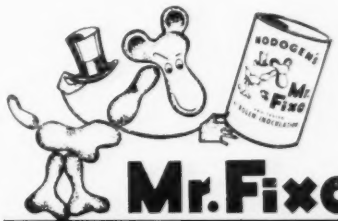
Beans with a brown hilum may mutate to solid brown, but this is uncommon. Buyers may have noticed brown beans in Dorman, Jackson, or other brown-hilum varieties.

Another objectionable color characteristic is soybean mottling. True mottling is an environmental factor; however, there is some difference between varieties in amount of mottling. Generally, the most mottling is observed when beans are grown on extremely fertile soils with high rainfall.

Not too much is known about physiological mottling, but geneticists know that it isn't inherited to any great extent which means that mottled seed will not necessarily produce mottled offspring.

Caviness indicated that the Agricultural Experiment Station soybean breeding program is placing major emphasis on the development of improved soybean varieties with light-colored hilums.

Donald Hawkins, New York, has been appointed regional sales supervisor for Archer-Daniels-Midland Co. He will be responsible for the sale and marketing of soybean oil meal, soy flour and other products in New England and several other Eastern States.



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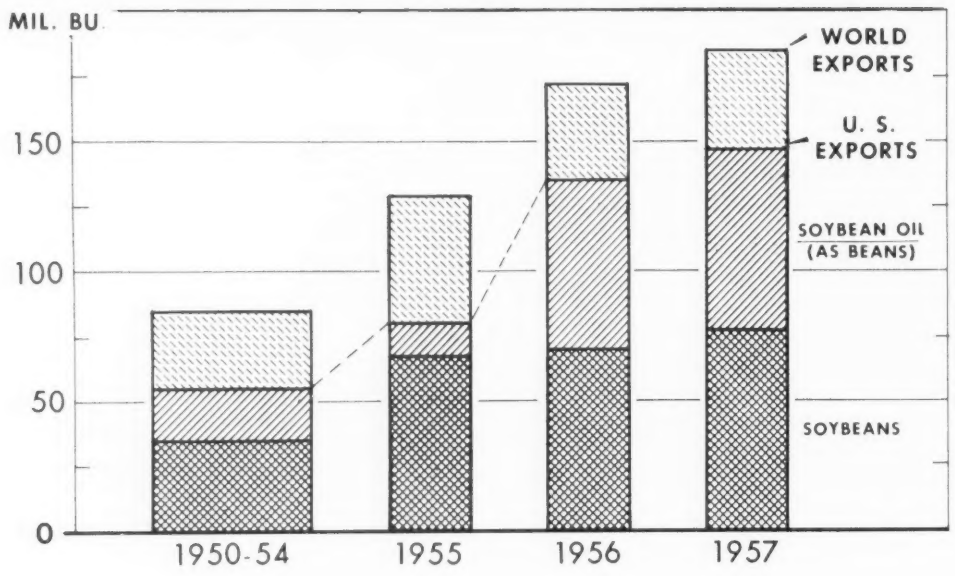
U. S. Soybean and Oil Exports Nearly Tripled Since 1950-54



Exports are vital to the soybean producer

(Charts and much of the information are from the Foreign Agricultural Service publication, "The Problem of Maintaining High Level Agricultural Exports.")

THE SOYBEAN producer's prosperity depends in high degree on exports.

In the 1956-57 marketing year 35c of every soybean dollar came from exports, compared with 12c of the farm dollar as a whole.

Total soybeans exported in 1957, including soybean oil as beans, was 160 million bushels, out of a 1956 crop of 455 million bushels.

One bushel of every five produced in this country is now being shipped abroad. The other four are sold to U. S. processing plants where they are processed into meal and oil. But 40% of the soybean oil turned out by our processing plants is also sold into export channels.

So exports are important to the North Dakota farmer whose beans find their way to a nearby processing plant as well as the farmer in Arkansas whose beans may be sold for export.

It is safe to say that without exports domestic prices for soybeans and their products would be badly depressed and 100 million bushels or more might now be in government storage, overhanging the market.

Exports of soybeans have increased rapidly in recent years and to a large extent have kept pace with the increase in soybean production. While U. S. soybean production jumped from the 1950-54 average of almost 300 million bushels to 491 million bushels in 1957, the volume of exports of soybeans and soybean products nearly tripled in the same period, from 54 million bushels of soybeans and soybean oil (as beans) to 157 million in 1957.

And 1957 set an all-time record for exports of soybeans and soybean products, as well as for all U. S. farm products.

The factors supporting high U. S. agricultural exports in 1957 included:

1—Abundant U. S. supplies of farm products.

2—Economic expansion and prosperity abroad, particularly in West Europe and Japan.

3—Commodity Credit Corp. sales of surplus commodities for export at competitive world prices.

4—Sales for foreign currency under P. L. 480.

5—Lower production of some crops abroad.

Specifically, the reasons for high soybean exports in 1957 include:

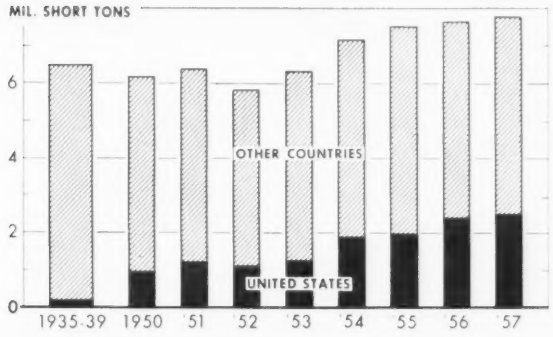
1—Realistic pricing policies that priced soybeans and soybean products into world markets, not out of them. These included government price supports which on the recommendation of the American Soybean Association have been maintained at levels that have kept soybeans moving.

2—Governmental export programs, particularly P. L. 480.

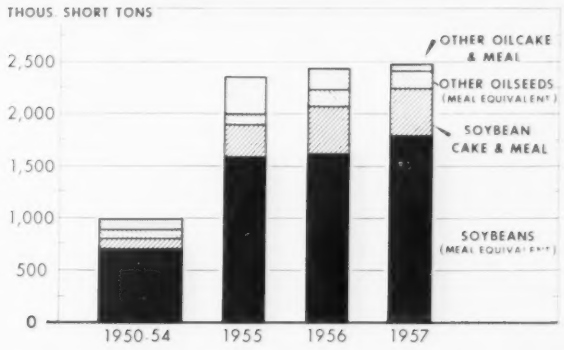
3—Promotional efforts of the American Soybean Association and the Soybean Council of America, in cooperation with the U. S. Department of Agriculture.

All soybeans exported are moved through regular commercial channels since soybeans are not in surplus.

Nearly One-Third World Fats and Oils Exports from United States



United States Continues to Expand Exports of Vegetable Proteins



But substantial amounts of vegetable oils moved abroad last year under special government programs and made up 30% of the total. Much of the growth in government program exports has been due to P. L. 480.

What are the chances for maintaining the 1957 level of exports?

There is increasing production of some competing oilseed crops in some countries, which may detract from our sales abroad.

It should be pointed out that some countries have declining gold and dollar reserves even though they are in the midst of boom conditions. Such countries tend to restrict imports from dollar countries.

U. S. government programs now in use will help dollar-short foreign customers to obtain U. S. commodities.

U. S. Leads

The United States is by far the largest world supplier of fats, oils and oilseeds. In 1956, the United States exported 40% to 50% of the total edible oils and oilseeds exported.

Currently the United States is supplying three-fourths or more of the world's exports of soybeans and soybean oil, and cottonseed and cottonseed oil.

Japan is the largest customer for U. S. soybeans, followed by Germany, the Netherlands, and Canada. Most of U. S. soybean oil goes to Western Europe, mainly Spain and Italy.

Without abundant U. S. supplies, prices would be higher and consumption down in many world areas.

U. S. Meal Exports

U. S. exports of vegetable protein (meal and oilseeds in terms of meal) are going to markets formerly served by Argentina, India and Mainland China.

Western Europe, with its rapidly expanding livestock industry, is a big market for protein supplements. World suppliers of these products are changing. China and India ranked first and third, respectively, before the war, but no longer hold these positions. Argentina, where production has been down, is again expanding these products.

Major vegetable protein items exported by the United States are soybeans and soybean cake and meal.

Market Development Projects

The government in cooperation with private trade groups is promoting U. S. farm products extensively abroad with foreign currencies made available under Section 104(a) of P. L. 480.

In this program, market development projects to promote the sale of U. S. farm products for dollars are carried out by U. S. trade groups under cooperative agreements with Foreign Agricultural Service, U. S. Department of Agriculture. Cooperating in the soybean projects are the American Soybean Association in Japan, and the Soybean Council of America, Inc., in Europe.

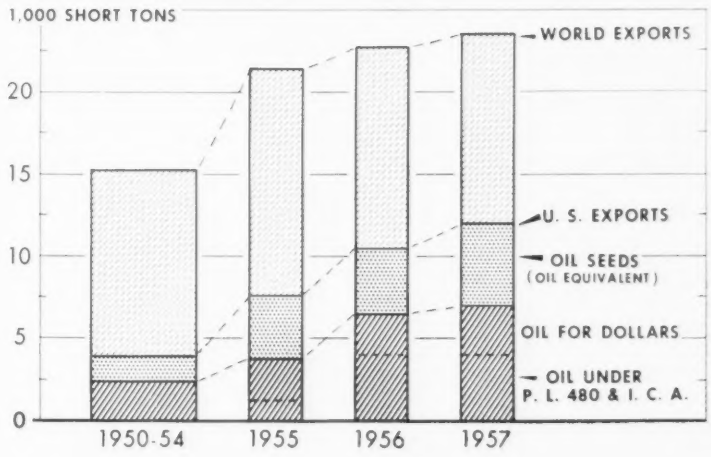
Participation in the projects by foreign trade groups also is emphasized. And all participants, including the government and U. S. and foreign trade groups, share in the cost.

The scope of foreign market development work is being expanded this year.

In the 2-year period, July 1, 1955, to June 30, 1957, 69 market development projects were initiated in 26 countries including three for soybeans in Japan, Italy and Spain.

The American Soybean Association is sponsoring the export market development project in Japan. The operating agency is the Japanese-American Soybean Institute and Japanese trade groups are cooperating. The project is now in its second year with another year to run on the current contract.

U. S. Exports of Edible Fats and Oils Greatly Aided by Government Programs



THE CONTEST WINNERS:

57-Bushel Yield in Indiana

JOHN H. MOOREHEAD, Vanderburgh County farmer, paced all Indiana farmers to a state soybean yield championship with a production of 57 bushels per acre according to results reported by K. E. Beeson, secretary-treasurer of the Indiana Crop Improvement Association, sponsor of the contest.

For the first time in the 18-year history of the contest, the highest yield record was made in Union Township, one of the pioneer soybean growing areas in Indiana. This township, often swept by floods of the Ohio River, and famous around the turn of the century for continuous corn production, initiated a rotation of corn and soybeans in the overflow land in the early 20's. Weed and flood control methods were so thoroughly worked out and practiced that much of the township has become one of the interesting agricultural show spots of Indiana.

With the advent of the combine, it became the most concentrated soybean growing township in Indiana. The Hahn and Kuester brothers, Oscar Schnurr, the Burgdorf and Wildt families, King Kamp, the late Charles Zimmerman, Theodore Kolb and others developed the techniques of soybean production in the area that eventually led to the outstanding yield produced by Mr. Moorehead.

Forty-inch row seeding of the high yielding Clark soybean in a field of 20 acres, with almost perfect weed control, led to the 1957 sensational yield. Consistency of production in what is one of the best farmed areas of river bottom land in the state is indicated by 50-bushel yields for the entire soybean crop of Moorehead and his neighbors, King Kamp and Oscar Schnurr.

Eighth place state honors were captured by Carl Burgdorf of the same community with a yield of 51.8 bushels per acre. These men used the high yielding Clark soybean which has become the most extensively grown variety in southwestern Indiana. Its relative late maturity, however, has restricted its use to the southern part of the state or to northern areas where farmers have no intention of following soys with wheat.

Other high yields in the state contest include Neal Paulsel of Madison County with a yield of 54.5; Orville Steele of Delaware with a yield of 54.1; L. K. Wyckoff of Porter, Robert Benoit of Jasper, James L. Wyckoff of Porter, Paul Zimmer of Jasper, all of whom scored in the 52-bushel yield bracket. Of these, all except Steele and Zimmer planted the Harosoy variety and the other two used Clark and Lincoln.

Other contestants who made the 50-bushel soybean club in 1957 included Willard E. Henderson of Benton County. Henderson topped former state champion Tom Maddox of Benton County whose field checked 48 bushels. The Maddox high yield of 63.6 bushels in the 1954 contest has never been equalled.

Other rose gold medal winners with yields over 50 bushels per acre in the state contest included Chester Vanada of Warrick County, George Shell of Madison County, a four time state champion, and Cyril Gard of Vigo County, all of whom grew the Clark soybean. Allan Anson of Huntington County grew Lincoln and Clifton Cardwell of Tipton and Paul Preiser of Cass County planted Harosoy.

Eighty-eight contestants had their yields checked by actual measurement of 5 or more acres in the contest sponsored jointly by Purdue and the Indiana Crop Improvement Association. Practically all planted around 4 pecks per acre in 38 or 40-inch rows.

Fertilizer applications in the row were not heavy due to the danger of injuring the seedlings. However, fertility levels due to past fertilizer applications and good farm practices were high and are generally considered by the outstanding soybean growers to make an important contribution to high yields.

State average yield for over 2 million acres of soybeans was 24.5 bushels, the highest ever recorded for Indiana.

51 Bushels for Sussex County, Del., King

F. T. WARRINGTON of Georgetown, Sussex County, was crowned the Delaware soybean king for 1957 at the Delaware Crop Improvement Association's annual awards banquet. His yield of 51.3 bushels per acre captured championship honors among the 130 entries enrolled in the 5-acre soybean yield program last year.

Edward Metz was second with 49.4 bushels thereby maintaining his second place prestige for the third consecutive year. A second entry by Warrington was third with 49.0 bushels. William L. Stoltzfus of Felton was fourth and Kent County winner with 47.4 bushels. Elwood Fox of Bear was fifth and New Castle County winner with 46.8 bushels.

In producing the championship yield, Warrington planted the Clark variety on June 15 in 28-inch rows at the rate of 45 pounds of certified seed per acre. An 0-15-30 fertilizer

CHAMPION Moorehead of Union Township.

CHAMPION Warrington, Delaware.

at the rate of 200 pounds per acre was drilled before planting and disced in. The field was in pasture the preceding year.

A total of 16 entires, representing 12% of the total, succeeded in producing 40 bushels or more per acre and thereby gained membership in the "40-Bushel Soybean Club." In comparison to previous years, 50% of the total entries in 1955 and 25% in 1956 succeeded in producing yields which qualified them to become enrolled as members of the club. The comparatively large reduction in 40-bushel members last year is indicative of the rather unfavorable growing season experienced by soybean growers. In addition to prolonged periods of soil moisture deficiency, spider mite damage was more widespread and severe than ever before.

All but one of the 16 "40-Bushel Club" members grew the Clark variety. The 10th highest yield was produced by the Wabash variety. Other varieties which were represented in the yield program included Ogden, Lee, Perry, Dorman, and Luthy.

Row width also appeared to be of some significance in producing high yields. Four of the five top yields were grown in narrow rows. The first, third and fourth were in 28-inch rows and the second in 18-inch rows. Row widths, as determined by actual measurement in the field, varied from 18 to 43 inches.

The soybean yield program, under the supervision of Dr. Henry W. Indyk, is sponsored by the Delaware Crop Improvement Association and conducted by the University of Delaware agronomy department in cooperation with county agricultural extension agents.

Dale Lehe Winner at Remington, Ind., Show

MARGARINE offers a "breakthrough" opportunity for soybean oil in the food field, Siert F. Riepma, president of the National Association of Margarine Manufacturers, advised soybean growers attending the 20th annual Remington (Ind.) Soybean Show.

Since 1945, Riepma pointed out, per capita consumption of "visible" fats and oils has been relatively stable, averaging around 44 pounds per year. During the same period, however, consumption of soybean oil in food fats as a group has increased 111%, chiefly owing to margarine production having risen almost 230%.

Use of soybean oil in margarine since 1945 has increased by 550 million pounds per year, Riepma noted.

Other speakers were A. H. Probst and K. E. Beeson, Purdue University agronomists.

Dale Lehe was judged the grand champion and Jack Taulman, the reserve grand champion of the show. Dale was champion of the 4-H class and Jack of the vocational agriculture division.

Beattie Wins Again At International

SOYBEAN CHAMPION at the International Grain & Hay Show in Chicago in December was William R. Beattie, Staples, Ontario, Canada.

Mr. Beattie was also soybean champion at the International in 1956, and he has won the championship twice at the Royal Winter Fair in Toronto.

Reserve champion was Paul K. Johnson of Ladaza, Ind.

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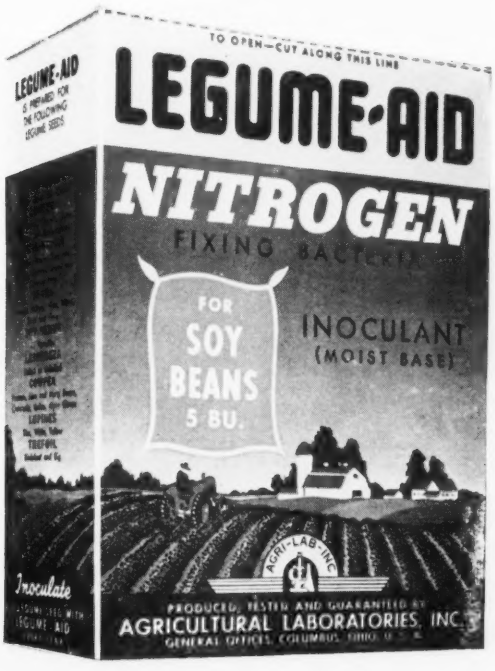

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Sees Clash of U. S. China in Japan Market

INTERESTS of the United States and communist China are certain to clash over the Japanese market for soybeans, which is important to both countries, according to a Japanese view.

Dr. Shigeo Hosono, staff member of the General Agricultural Research Institute of Japan, points out that the United States depends on Japan for about 40% of her export market for soybeans. At the same time China — the world's second largest producer of soybeans—expects to export a substantial part of her surplus beans to Japan.

Also, China has begun to export rice to Japan and is coming into conflict with U. S. rice exporters.

The relationship of Chinese soybeans to international trade is discussed by Dr. Hosono in his book, the Soybean as an International Commodity, which was published in Japan in 1957.

China's postwar production of soybeans has fallen well below the average prewar output of 10 to 11 million metric tons annually (in the neighborhood of 400 million bushels). The U. S. Department of Agriculture estimates 1957 soybean production in China-Manchuria at 335 million bushels.

The sharp postwar decline in soybean production in China may be ascribable to the fact that some provinces, particularly Manchuria, did not recover entirely from war damage. And sudden changes in agriculture caused by land reform measures brought about a general decrease in crop production.

In Dr. Hosono's view, production may be expected to recover entirely sooner or later since efforts are being made to increase yields of soybeans as well as other food crops in order to boost the supply of edible oils.

Dr. Hosono sees communist China's potential exports at the present time as about 1 million metric tons (36.6 million bushels) annually, with about 300,000 tons going to Japan.

Exports of soybean oil meal are restricted since meal is in heavy demand as a fertilizer to boost the output of cotton, according to the author. This is one reason why a larger part of the Chinese soybean crop is not available for export.

Dr. Hosono points out that exports are controlled by the Chinese government's foreign trade policy and are a monopoly of state-operated export-import companies.

China's trade with countries in the Soviet orbit has rapidly increased since 1951 and reached 81% of total exports in 1954. Under the Soviet-Communist China trade agreement China imports machinery and equipment and exports raw materials including soybeans and vegetable oils.

The changes in China's trade policy brought about by the communist government has naturally transformed Japan's trade with China. And Japan's peculiar relationship with the United States has brought Japan's trade with China under even more rigorous restriction.

The U. S. embargo policy toward China hampers the development of Asiatic continental trade not only for Japan but also for West European countries. But Hosono believes there will be no difficulty for Japan to import Chinese soybeans if Japan can export goods demanded by China.

Japanese tradesmen consider Chinese soybeans of excellent quality. Export standards call for less than 15% moisture, less than 3% foreign material and over 16% oil. And Japan can save considerable on freight charges by buying Chinese soybeans due to her geographical proximity.

Margin Requirements Change in Chicago

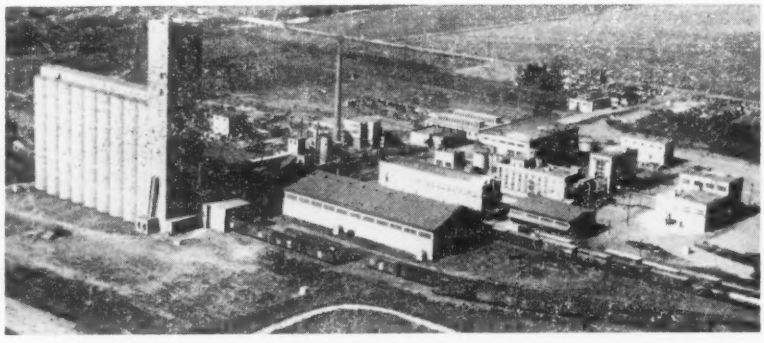
CHANGES in the margin requirements on soybean oil and other futures have been authorized by the directors of the Chicago Board of Trade effective Jan. 2.

For soybean oil futures transactions, provisions were made for a sliding scale of initial margin requirements calling for $500 per contract of 60,000 pounds when the price is less than 11¢ per pound; $600 per contract when the price is from 11¢ to 11.99¢ per pound and $700 per contract between 12¢ and 12.99¢ per pound.

Initial margin requirements on soybean oil contracts made at 13¢ per pound and over remained the same as they have been. On spread and hedging transactions in a soybean oil and cottonseed oil, a reduction of $200 per contract was put into effect in setting the margin requirement at $400 per contact.

On Jan. 17, the board ordered the minimum margin requirements on soybean futures contracts reduced from 15¢ to 12¢ per bushel, effective Jan. 20. Maintenance and spreading margins (other than intramarket) on soybeans were reduced from 10¢ to 8¢ per bushel.

ADM Protein Plant at Evendale



ARCHER - DANIELS - MIDLAND Co.'s new Evendale, Ohio, plant where ADM produces isolated soy proteins. A new product for ADM, they are another step in the Minneapolis company's diversification program. Isolated soy proteins, on which ADM has done extensive research, are ingredients of many industrial and food products.

They are made from soybeans by a series of chemical extraction and purification processes. Largest present use for isolated soy proteins is in adhesives employed in the manufacture of high grade printing papers.

Another major market is water base paint, where the soy proteins are used as emulsion stabilizers. They also have numerous applications in foods such as soups, icings, meringues and baby foods.

The Evendale plant, which ADM purchased from the Drackett Co., Cincinnati, employs about 200 persons. In addition to its manufacturing facilities, the plant has 2 million bushels of grain storage capacity.

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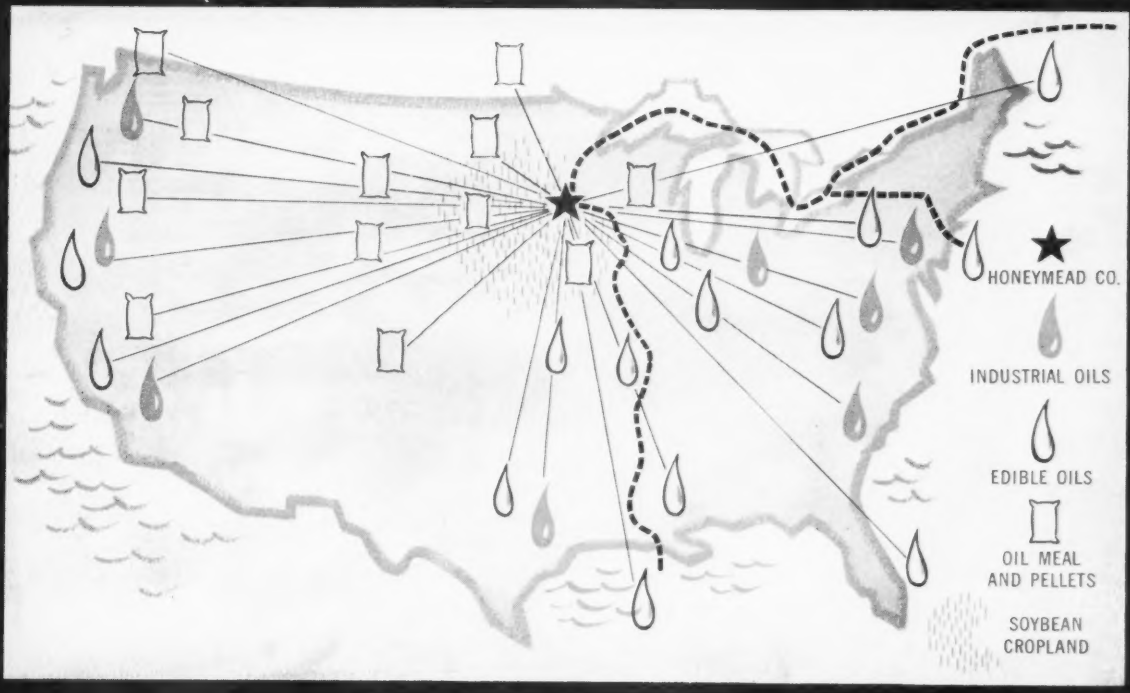

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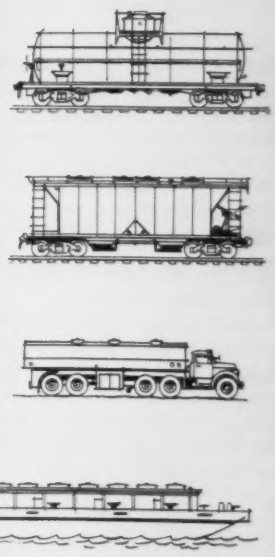

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PUBLICATIONS

Why Soy Best Oil for Heart Patients

THERE ARE at least three good reasons why soybean oil surpasses all other oils in being an ideal food for heart patients and for those who wish to avoid heart disease, says Dr. Philip S. Chen of Atlantic Union College.

It contains more essential fatty acids than any other commonly used vegetable oil, and it is higher in lecithin and sitosterol. However, Dr. Chen states that only the crude, unrefined soybean oil contains lecithin and sitosterol as well as the unsaturated fatty acids.

Soybean Oil for the Heart. By Philip S. Chen, Ph. D. These Times, December 1957, pages 16-18.

Facts on Dietary Fats

RECENTLY, many articles have appeared in the press regarding the role of fats in the human diet. The chemistry of fats is an extremely complicated subject and it is not surprising that many of these articles have included some assumptions and some misconceptions of a technical and factual nature.

The Institute of Shortening and Edible Oils, Inc., has prepared a brochure to assist those who may be interested in the subject. It attempts to clear up some of the facts concerning dietary fats by answering the questions most frequently raised regarding them.

The Chemistry of Food Fats and Oils. Institute of Shortening and Edible Oils, Inc., 1145 19th Street N. W., Suite 316, Washington 6, D. C.

Reports on Varieties

THE OGDEN VARIETY led all others in average yields in test results by the Tennessee Agricultural Experiment Station from three locations in 1956 and two in 1955.

Dry weather caused erratic performance of the later maturing varieties at one location, Jackson, in 1956.

The average yields for the 2 years at the three locations: Ogden 26.1 bushels per acre; Lee 25.7; Volstate 23.6; Perry 21.6; S-100 21.2; Dorman 20.8; Wabash 20.1.

Ogden, Lee and Dorman are recommended varieties in Tennessee.

1956 Performance Trials of Field Crop Varieties. Bulletin No. 256, January 1957. Agricultural Experiment Station, Knoxville, Tenn.

Results of the Kentucky Soybean Variety Performance and Fertilizer Tests 1956. By J. F. Freeman, S. H. Phillips, E. C. Doll and H. R. Richards. Kentucky Agricultural Experiment Station, Lexington, Ky.

Recommended varieties for northern and eastern Kentucky are Clark, Wabash and Lincoln; and for southern and western Kentucky, Clark, Perry and Ogden.

Performance of Soybean Varieties in Michigan. By S. C. Hildebrand. Quarterly Bulletin of the Michigan Agricultural Experiment Station, East Lansing, Mich. Vol. 39, No. 3, pages 451-456.

Recommended varieties are Norchief, Chippewa, Blackhawk and Harosoy.

Soybeans, Cowpeas, and Velvetbeans, by States, 1924-53. Acreage, yield, production, price and value. Statistical Bulletin No. 211. Crop Reporting Board, Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D. C.

Arkansas Soybean Variety Trials 1951 to 1956. By C. E. Caviness and P. E. Smith. Report Series 65. Arkansas Agricultural Experiment Station, Fayetteville, Ark.

Growing Soybeans in Delaware. By Henry W. Indyk. Mimeo Circular No. 14. Extension Service, University of Delaware, Newark, Del.

Ethanol Extraction

Extraction of Vegetable Oil-Cakes with Ethanol. By K. Ramalingam and K. S. Chari, Regional Research Laboratory, Hyderabad, India. Presented before American Oil Chemists' Society. Present address of Mr. Ramalingam, Department of Chemical Engineering, University of Cincinnati, Cincinnati 21, Ohio.

Cottonseed

Handling Cotton Planting-Seed at Cotton Gins. By Gerald N. Franks, and J. C. Oglesbee, Jr. Production Research Report No. 7, U. S. Department of Agriculture. 10¢. Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

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The Haskins Company, East 3613 Main, Spokane

BUTLER MANUFACTURING COMPANY

GRITS and FLAKES . . . *from the World of Soy*

New W-T Building

The **Woodson-Tenent Laboratories,** Memphis, Tenn., have let the contract for a new building at 1522-24 East 75th St., Chicago, Ill., to expand their facilities in the vegetable oil products field, to be completed by Apr. 1.

For the past 6 years, the Chicago laboratory was housed at 9 S. Clinton Street Building and had facilities only for specializing in the analyses of soybean oils.

With the rapid development of industry in that area, the owners decided to build their own quarters and install equipment for analyzing not only soybean oils, but all types of vegetable oils, meals and all types of oil products.

The laboratories are members of the National Soybean Processors Association, official chemists for Chicago Board of Trade, and referee chemists for the American Oil Chemists' Society.

Warner G. Wadlington is manager of the Chicago laboratory.

The Woodson-Tenent Laboratories operate seven laboratories, with the main office and laboratory at 265 S. Front St., Memphis, Tenn. The associated laboratories are located at Little Rock and Wilson, Ark., Cairo, Ill., Clarksdale, Miss., Des Moines, Iowa, and Chicago.

Owners of the laboratories are: E. H. Tenent, Sr., E. H. Tenent, Jr., and P. F. Woodson.

H. L. Raclin Passes

H. L. Raclin, **H. L. Raclin & Sons, Inc.,** Winnetka, Ill., brokers, died recently as a result of coronary thrombosis.

Mr. Raclin started his career as a newspaperman with the William R. Hearst organization. Later, he directed sales of hides and animal fats for the Wilson Co., then became vice president of A. L. Webster & Co., brokers in hides and animal fats.

In 1928, he conceived the idea of freezing fresh orange and lemon juice and became president of the Pure Frozen Orange Juice Corp. of America, which was later purchased by Lash's Bitters Co.

Mr. Raclin then formed H. L. Raclin Co., one of the first brokers in soybean oil. This developed into a worldwide organization.

New ADM Department

Archer-Daniels-Midland Co. is going into the manufacturing of processing and bulk storage equipment for the feed, chemical and alfalfa industries. The company, one of the leading processors of agricultural commodities, has established an equipment department to produce and market new products.

Frank D. Allen

Frank D. Allen, formerly general sales manager of Sprout, Waldron & Co., has been named sales manager of the new department. Allen will maintain headquarters at ADM's Kansas City, Mo., offices in the Centennial Building.

Louis G. Flentge, Berryville, Ark., has joined **Archer-Daniels-Midland Co.** as formula feed salesman in the firm's southwest feed division. He is former owner of the Cardinal Feed Store in Berryville.

ANALYTICAL SERVICE TO THE SOYBEAN INDUSTRY SINCE 1935

With

7

Chemical Laboratories

CHICAGO, ILL.
9 So. Clinton St. Bldg.

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CAIRO, ILL.
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MAIN OFFICES AND LABORATORIES: 265 SO. FRONT ST., MEMPHIS, TENN.

WOODSON-TENENT LABORATORIES

Official Chemists for the Chicago Board of Trade
Official Chemists for National Soybean Processors Association

Specializing in Soybean Oils – Cake – Meals – Feeds

"Over 2 million samples analyzed since 1935."

Hosty Reelected

Thomas E. Hosty, Sr., senior partner with Sincere & Co., was reelected chairman of the board, **Chicago Board of Trade,** by the membership Jan. 20. James F. Wade, partner with Lamson Bros. & Co., was reelected vice chairman.

Ford M. Ferguson, Stratton Grain Co., was chosen second vice chairman. Hosty, Wade and Ferguson were all unopposed.

Elected directors of the Exchange for 3-year terms: James E. Baggott, Baggott & Morrison; Ray C. Feuerhaken, Jr., broker; Samuel A. McMurray, Merrill Lynch, Pierce, Fenner & Beane; William J. Kentnich, Jr., broker; and Clarence Rowland, Jr., Engel & Co.

Record Drier Sales

A record number of new drier construction starts for the month of December is reported by **Shanzer Manufacturing Co.** Unprecedented demand for the firm's line of screen column driers has required continuation of 24-hour-a-day production schedules initiated in September.

Most of the new units will be used for drying milo and corn. They range in capacity from 400 to 2,000 bushels per hour.

Herman Young, Forest City, Ark., grain dealer, has remodeled the old Cotton Belt water tank at Clarendon into a soybean handling plant, and has also purchased the Trimble Soybean Co. plant and facilities there. George Stagg and Henry Sain will manage the new business.

F. Nemec, formerly with J. A. Pilar & Co., Ltd., has announced to the seed trade the formation of a new firm under the name of **Quebec Seed Co.,** at 3421 Grand Blvd., Montreal 28, Quebec. The firm is shipper of all kinds of Canadian seed.

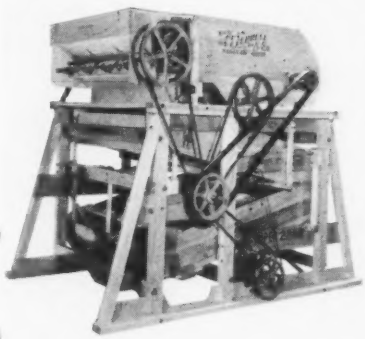
Frank A. McGrath has been appointed manager of the Buffalo division of the **R. J. Brown Co.** Plant and offices are at No. 1 Howell St., Buffalo 7, N. Y. Telephone is Delaware 2446. Mr. McGrath has had wide experience in the petroleum industry, having been associated with Frontier Oil & Refining Co. John T. Dailey, who has traveled for R. J. Brown Co. in the Midsouth, has been transferred to Buffalo to assist Mr. McGrath.

Warren B. Nelson has been admitted to the partnership of **Longstreet-Abbott & Co.,** St. Louis firm of commodity counselors. He joined the firm in 1950 as an analyst and trading specialist in wheat and rye.

Clipper *Hi-Capacity*

SOYBEAN CLEANERS

each engineered for fast, top level cleaning . . .



. . . Super 228-D

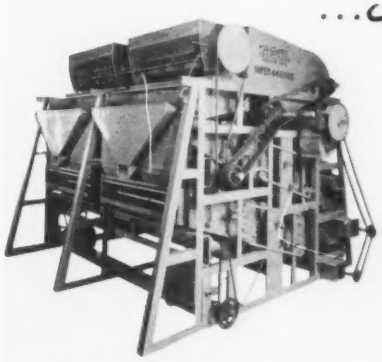
Low cost, simplicity and sturdiness of construction, coupled with its great versatility, has made this cleaner one of our most popular models. ***Cleans*** wheat and ***soybeans at rate of 1000 to 1200 bushels per hour.*** Rough rice is cleaned at 600 bushels per hour. Using close top screens this 228-D makes selective separations at relatively lesser capacities. Built either in all-steel or wood construction as desired.

. . . Super 2248-D

TWINFLOW

The new large capacity market cleaner that *really* cleans, using a medium-size top screen, it is easy to get such capacities as: ***3000 bushels of*** wheat and ***soybeans,*** 2500 bushels of corn, 2000 bushels of oats and 1800 bushels of rice ***per hour.*** Built in either all-steel or wood construction, it is especially designed for grain elevators, corn or ***soybean plants*** and rice mills.

. . . Super 4488-DS



QUADFLOW

In the same respect as with the two fast cleaners above, the 6000 bushels per hour rated capacity of this big, powerful Clipper is conservatively stated. Greater output is possible depending on the condition of the grain and desired degree of cleaning. Users acclaim its dependability—"once adjusted it does a consistently faithful job of cleaning, hour after hour, with little more than an occasional glance to check feed and flow." Built in steel construction only. ***6000 bu. SOYBEANS.***

These are three of over sixty models to do your screen and air cleaning job best. The Clipper line includes precision seed cleaners, scalpers, a complete line of bucket elevators, cob breakers, polishers, dust collectors, vibrating pits and conveyors, debearders, huller-scarifiers, etc. RANDOLPH GRAIN DRIERS—300 to 2500 bu. per hr. capacities.

CLIPPER
CLEANERS • DRIERS and HANDLING EQUIPMENT

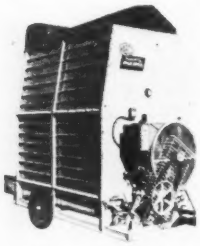
Let us quote you

A. T. FERRELL & COMPANY Saginaw, Michigan

NEW PRODUCTS and SERVICES

GRAIN DRIER. The Habco Manufacturing Co. has announced the production of its new "200" Recirculating Grain Drier, incorporating a number of design improvements over Habco's already widely accepted "400."

One of the biggest advantages of the new "200" is the fact that its 230-bushel (shelled corn) capacity fits it to the needs of every size farming operation. It is recommended for drying a number of grains and soybeans.

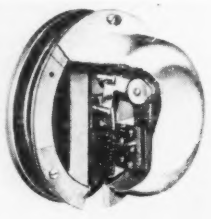


The Habco "200" burns LP gas in a wide range burner, and operates off tractor PTO or an electric motor. It is completely portable with a height of 12 feet 5 inches and a width of 8 feet 2 inches when rigged for the road.

For further information write Soybean Digest 2d, Hudson, Iowa.

BIN LEVEL INDICATOR. Important improvements in the Bin-Dicator—automatic bin level indicator and control unit—are announced by the Bin-Dicator Co.

Most significant change, particularly helpful on units which are to be installed in hard-to-get-at locations, is a twist lock cover. This new design has no nuts or bolts that can drop. It incorporates slotted hex head screws that need only to be loosened so that the cover can be turned and lifted, exposing the entire operating mechanism.



Another improvement in the Bin-Dicator is a vented housing, permitting a more sensitive and reliable operation than ever before.

The Bin-Dicator is essentially a diaphragm-operated switch for operation on all bulk materials that flow through a bin.

For further information write Soybean Digest 2e, Hudson, Iowa.

DESOLVENTIZER TOASTER. Extraktionstechnik Heinrich Meyer, Hamburg, Germany, as licensee of Central Soya Co., Inc., has developed a desolventizer toaster which it calls the new way of desolventizing solvent extracted meal.

The company describes the process:

"Cooking of extraction residues in steam, thus insuring better digestibility, improving the quality of the feed and eliminating urease activity.

"Uniform heating of the meal, and, therefore, preserving thermic treatment, permitting the maintenance of a high content of thiamin when handling soybeans.

"Uniform thorough moistening of the final products as well as agglomeration of dust, insuring a less dusty meal.

"Considerable reduction of solvent loss thanks to a better design of the apparatus."

For more information write Soybean Digest 2c, Hudson, Iowa.

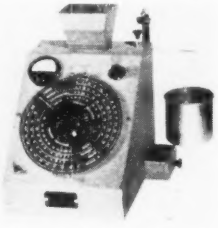
CUSTOM MILL. To aid the users of Prater Blue Streak Advance Custom Mills in the more careful installation and operation of their mills, a 12-page operating manual has just been printed by Prater Pulverizer Co.

Detailed installation and operating instructions with illustrations to supplement them make up five pages, followed by parts tables and detail drawings showing part locations and names which insure easy identification when reordering becomes necessary.

For a copy of booklet OM-571 write to Soybean Digest 2b, Hudson, Iowa.

MOISTURE METER. A new, self-powered transistor moisture meter that is completely portable has just been announced by Radson Engineering Corp.

This all-new Model TR30 operates with elevator accuracy anywhere—anytime. It was developed especially for the needs of rice growers and the portable grain drying market. The operator can save time and money by using his meter in the field, at the bin or right next to his drier.



The operator doing custom work can have a Radson Moisture Meter at his side no matter what grain he is harvesting, as the Model TR30 gives accurate readings of all grains on the easy-to-read dial.

TR30 is lightweight, yet rugged enough for rough use in the field.

For further information write Soybean Digest 2a, Hudson, Iowa.

Mitchell, Hutchins & Co.

SPECIALISTS IN COMMODITY FUTURES—

—CATERING TO THE SOYBEAN INDUSTRY

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IS YOUR ELEVATOR EQUIPPED TO MEET COMPETITION IN 1960 ?

Burlington Elevator Co. takes a *"New Look"* to the Future

this Columbian Classifying-Blending-Storage Elevator looms high and handsome against the skyline at Hebron, Nebraska.

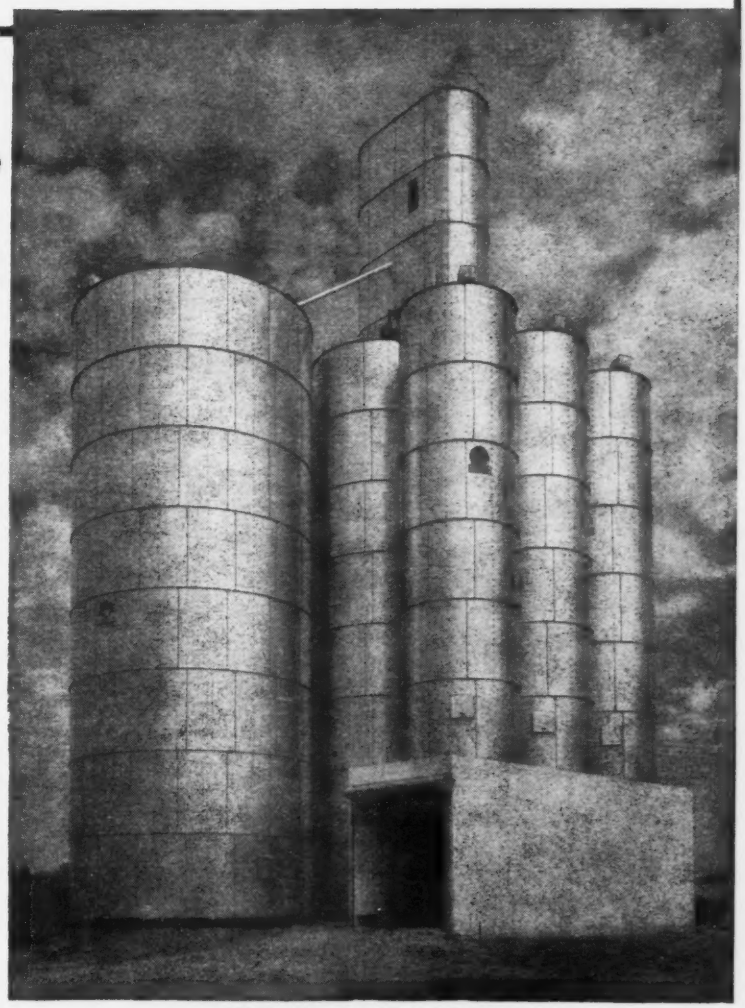
Modernization or even complete replacement of obsolete country elevators is a necessity if you are to meet today's expanded demands for service and tomorrow's competition. Modern blending and classifying requirements of growers, feeders and shippers are making old elevators unprofitable . . . often unable to serve all the needs of their customers.

Farsighted management realized this when, needing to expand their old elevator facilities, they looked to the future and called in Columbian engineers. Result: This modern, handsome 115,000 bu. bolted steel elevator, equipped with complete facilities for blending and classifying grains . . . ready to meet today's expanded opportunities for country elevator service.

Four 15 x 64 ft. receiving tanks are the main feature of this efficient modern grain handling system. Included also in this new elevator are three 12 x 48 ft. blending tanks plus two 26 x 64 ft. storage tanks and an obround headhouse. It is an "all gravity" installation, saving costly machinery. Columbian engineers planned the layout and Columbian furnished the tanks and supplied the contractor to work with the owners, Simonds-Shields-Thies Grain Co., of Kansas City.

Burlington's management also knew that in choosing Columbian Bolted Steel Tanks they would get an elevator soundly engineered, flexible, fire-safe and vermin-proof—a structure impervious to wind and weather. When needed, added matching capacity will be easy.

Do you need a single Bolted Steel tank or a whole new elevator? In either case, Columbian will help you plan it just right for your problem . . . and your profit. Write today for your copy of the new Columbian Grain Tank Catalog.



BOLTED STEEL TANKS

MASTER-CRAFTED BY COLUMBIAN SINCE 1893

COLUMBIAN STEEL TANK COMPANY

P. O. Box 4048U — Kansas City, Mo.

ASSOCIATE MEMBER, GRAIN & FEED DEALERS NATIONAL ASSOCIATION. MEMBER, AMERICAN DEHYDRATORS ASSOCIATION

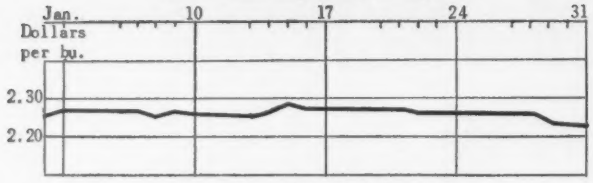
TANKS FOR THE WORLD

Reg. U.S. Pat. Off.

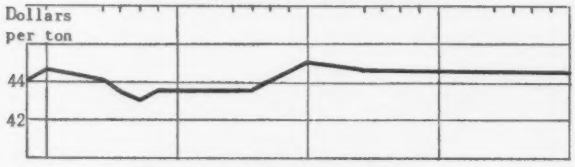
STEEL, Master-crafted by Columbian . . . First for Lasting Strength

DAILY MARKET PRICES

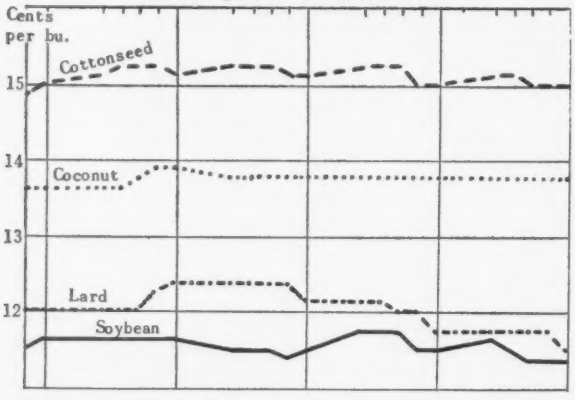
No. 1 Cash Soybeans, Chicago



Bulk Soybean Oil Meal, Decatur

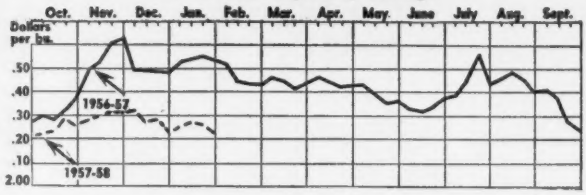


Crude Vegetable Oils and Lard

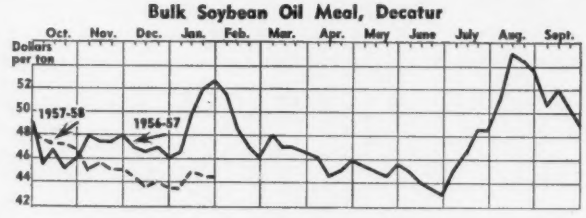


TRENDS AT A GLANCE (Weekly Close)

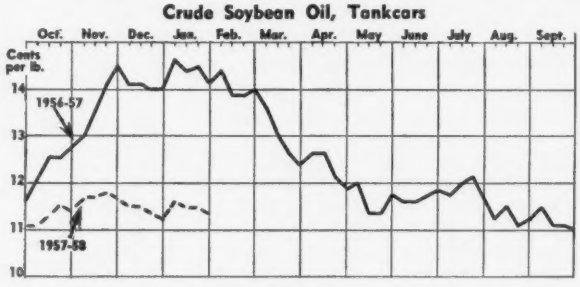
No. 1 Cash Soybeans, Chicago



Bulk Soybean Oil Meal, Decatur



Crude Soybean Oil, Tankcars



January Markets

MOVEMENT in the markets in January was mainly sidewise. There was little net change in either cash beans, meal or oil. Beans and meal showed a little strength in midmonth and soybean oil weakened during the same period.

Both beans and oil weakened the last of January following a Bureau of Census report that showed a buildup of stocks of soybean oil over a month earlier and almost double a year ago.

Record supplies and holdings by farmers were balanced by strong demand, continued heavy processor operations and a larger movement of beans abroad as compared with last year. A depressing factor was the continued delay in announcement of new fats and oils export business until late in January.

Some pickup in meal sales was reported in January, said to be due to dealers letting stocks run down at year's end. Farmers in some quarters were said to be buying meal to balance high moisture corn and grain sorghum they were feeding to livestock. In other quarters, the availability of high moisture corn and sorghum was called a depressant of the meal market. The mixed feed business was called slow at the month's end.

Bearish factors:

1—The government's report on soybean stocks in all positions, which some in the trade accepted as an indication that the soybean crop had been substantially underestimated.

2—The belief that the support price on 1958-crop soybeans will be lower than the support for the 1957 crop.

Bullish:

An erroneous report that USDA spokesmen predict a 25-million-bushel carryover of soybeans into the next crop year. The actual figure is 45 million bushels, but the lower figure was widely quoted.

BYPRODUCTS. The price of soybean fatty acids remained at 15¼¢ per pound during January. Acid soybean soap stock delivered Midwest declined from 6¢ to 5¾¢, and raw soybean soap stock declined from 2½¢ to 2¢.

1956 AND 1957 SOYBEAN CROPS

	1957	1956
Soybean stocks in all positions Jan. 1	380,013,000 bu.	327,353,000 bu.
Total soybeans placed under price support as of Dec. 15	41,104,000 bu.	50,822,000 bu.
Total soybeans withdrawn from support as of Dec. 15	77,000 bu.	1,796,000 bu.
Soybeans crushed first quarter	85,700,000 bu.	81,506,000 bu.
Balance on hand for processing or export Jan. 1	344,013,000 bu.*	311,359,000 bu.
Total soybeans inspected for overseas export plus lake shipments to Canada, Oct. 1-Jan. 24	46,503,609 bu.	43,119,000 bu.

*Stocks all positions less 36 million bushels for farm use. For detailed reports see "In the Markets" beginning page 36.

Talk with a SHANZER owner ...learn the big difference in GRAIN DRIERS

Here are drying operations that can turn on a dime. The reason is the absolute control and exceptional versatility possible with Shanzer equipment. Large operation, or small, this performance is what operators want.

In high volume, cost conscious operations like these, where company engineers and veteran grain executives study major equipment from every operational aspect before purchasing – there you will see Shanzer Driers specified again and again.

Our engineering department will work with you on planning a drying installation geared to your specific needs, whether they be large or small. There is no obligation, and in many cases it has been possible to save owners thousands of dollars. Over a quarter-century of experience is yours for the asking.

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Designers and Manufacturers of Stationary and Portable Grain Driers, Bucket Elevators, Conveyors and Manlift Elevators

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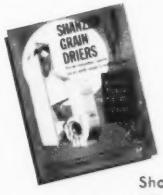
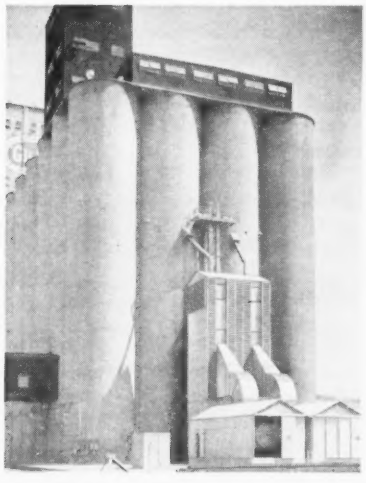


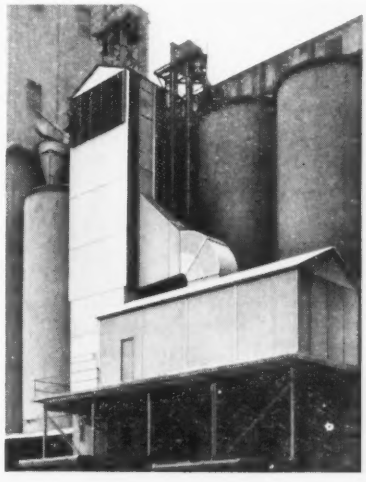
SHANZER

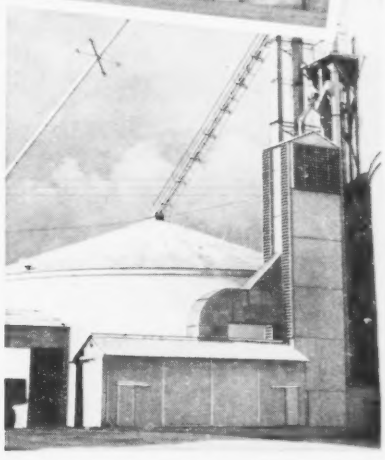
Send for Free Folder giving details

A Shanzer Twin Model 415CE is shown at Central Soya Co., Inc., Chattanooga, Tennessee.

Shown below are Shanzer installations at: left, The Glidden Company, Chicago, Illinois, Twin Model 515CE; below center, Farmer's Union Grain Terminal Assoc., St. Paul, Minnesota, Model 515CE; below right, Cargill, Inc., Port Allen, Louisiana, Model 501CE.







WASHINGTON DIGEST

Still Expect 45 Million Bu. Carryover

By PORTER M. HEDGE
Washington Correspondent for The Soybean Digest

SIGNING of the long-awaited Public Law 480 agreement providing for export of 110,000 metric tons of soybean oil among other commodities to Spain was announced by the U. S. Department of Agriculture Jan. 27. The agreement was signed in Spain.

Total shipments under the agreement, all under the P. L. 480 program, will come to $69 million, USDA said.

Representatives of the Spanish government are expected to come to the United States soon to negotiate new agreements, probably for additional purchases of U. S. fats and oils.

The people who will make the trip or the date of their arrival are not known at this time.

It's understood one purpose of the trip will be to implement regular P. L. 480 purchases and other aid with additional buying. Whether this will include additional edible oils from the United States isn't known at this time. It depends to some extent on Spanish exports of olive oil. If the latter are large, Spain may be allocated additional 480 oil supplies.

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The World's Finest Grain Drier

- DRYING CAPACITIES — up to 2,000 Bushels Per Hour in Self-Contained Units
- DRIES—Corn, Wheat, Oats, Soybeans, Rye, Barley, Milo, Rice, Buckwheat, etc.
- FIRED BY—Fuel Oil, Natural or LP Gas

Aeroglide Corporation

810 GLENWOOD AVE. — RALEIGH, N. C.
TELEPHONE 2-6422

Spain has received 15,000 tons from International Cooperation Administration, and another 15,000 tons on credits.

The log-jam in signing of P. L. 480 agreements appears to have been broken after 6 months of the fiscal year have passed. Through November 1957 only 19,044 metric tons of cottonseed and soybean oil had been shipped. Delivery periods on two agreements had been extended—to Jan. 31, 1958, for 3,100 metric tons to Colombia, and to Apr. 30, 1958, for 4,100 metric tons to Ecuador.

The Turkish agreement with 60,000 metric tons of edible oils was announced Jan. 20. A number of other agreements are on the fire:

The Polish agreement is understood to be in the State Department. It calls for 25,000 metric tons or more of edible oils. Yugoslavia is due to get at least 26,000 metric tons. There is even a little spark now behind the Italian program, which calls for about 23,000 tons of edible oils.

Tentative totals for Latin American countries add to around 25,000 metric tons. Morocco-Formosa-Burma are expected to obtain a possible 15,000 to 25,000 tons of oil.

P. L. 480 officials say the movement of soybeans to Germany is running ahead of a year ago.

Soybean Carryover

There is no official basis for a report, circulated widely, that the Department of Agriculture is expecting soybean carryover to be as low as 25 million bushels next fall.

The report was carried by a national ticker service on Jan. 14 and by a prominent trade paper the following day. It had the effect of raising soybean futures prices 2¢ to 3¢. USDA officials have ordered an investigation.

Officials responsible for keeping statistics of this kind say there has been no change in USDA thinking on carryover—and will not be until there is evidence of a much smaller total supply than the 490 million bushels officially carried or evidence of greater use.

The official supply and use figures as of late January were still the following:

Total supply 490 million bushels.

Estimated crush 325 million bushels.

Estimated exports 90 million bushels.

Estimated use as seed 30 million bushels.

Carryover next October 45 million bushels.

$1½ Billion Request

There is little question that Congress will approve the request of President Eisenhower for authority to use another $1½ billion in CCC-held surplus commodities during the 1958-59 fiscal year.

In fact, the Senate agriculture subcommittee studying the P. L. 480 program probably will recommend the use of $2 billion or more of CCC-held surpluses, and extension of the program a full 2 years. The subcommittee is chairmanned by Senator Hubert Humphrey of Minnesota.

Greater continuity in the program has been recommended by most of the outside-government witnesses who testified at the hearings. Representatives of the American voluntary relief agencies who have been given responsibility for carrying out relief work of the program abroad have put up a big case for making surplus commodities available for known periods—at least 6 months, preferably a year—rather than on a when-they-are-available basis.

The relief agencies also have made a strong plea for allocation of additional edible oils under Title III of the program. The subcommittee probably will recommend this in its report. Senator Humphrey spoke highly of the voluntary agencies and their need for edible oils following an inspection tour of the Middle East last summer.

More Dannen Stations

Dannen Mills, St. Joseph, Mo., has leased elevators at Independence, Kans., and Oswego, Kans., bringing the number of Dannen country stations to 25. Leon Fisher will continue as manager at the Oswego elevator and Roy Weed will manage the Independence operation and supervise the Oswego location.

What Happened to Iowa Harvest

SNOWBOUND combine in soybean field in northwest Iowa was a typical December scene that climaxed the poorest harvest season in several years.

Pest Damage in Del-Mar

CONSIDERABLE pest damage to soybeans in Delaware and Maryland during the 1957 growing season is reported by H. E. Mulliron and W. C. Harding, Jr., of the U. S. Department of Agriculture. Summer drought, which prevailed along the Eastern Seaboard, apparently favored a buildup of pests.

Infestations of spider mites in July and August were heavy in both states, the heaviest yet encountered in Delaware. And there were unusual outbreaks of velvetbean caterpillar in both Delaware and Maryland. Mr. Mulliron calls the outbreak the first one of economic proportions in Delaware.

Other pests which appeared in both states were corn earworm, which did heavy damage to pods late in the season, and Japanese beetle which was prevalent from June to August.

Grasshoppers damaged soybeans to some extent in Delaware.

And in Maryland bean leaf beetle was abundant on soybeans in most places during June, green cloverworm was general on the Eastern shore and southern areas during August, and thrips were abundant on soybeans on the Eastern shore and there was some leaf drop early in the season.

Plan Oil Symposium

A SOYBEAN OIL symposium will be held in Memphis Apr. 24, immediately following the meeting of the American Oil Chemists' Society, the Soybean Research Council of the National Soybean Processors Association has announced.

Part of the symposium will deal with the nutritional aspects of food fats and oils and part will be devoted to analytical and technical aspects. A number of well-known speakers will take part.

Dr. Fred Hill of Cornell University gave a report on metabolizable energy in various soybean products at a recent meeting of the Council. He presented new values for the M. E. content of 44% and 50% protein soybean oil meal, soybean millfeed and pure soybean hulls. This work, done under a financial grant from the Soybean Research Council, will be supported for another year. Results of the 1957 study will be published shortly.

New Margarine Record

MARGARINE production in 1957 set a new record of nearly 1,450 million pounds, it was estimated by Siert F. Riepma, president of the National Association of Margarine Manufacturers.

This is 6% above last year's all-time record production of 1,369 million pounds and represents the largest annual rate of increase for margarine since the most recent repeal of state prohibitions against the sale of yellow margarine in 1953. (Only two states—Minnesota and Wisconsin—still prohibit yellow margarine. The Federal color ban was repealed in 1950.)

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– MARKET STREET –

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WANTED—FOLLOWING USED equipment: One 14-inch to 16-inch screw 30 feet long; one No. 2133 Hart Carter cleaner; two truck hoists; two seed treaters; one grain dryer, 300 to 500 bushels per hour; five 3 to 7½ HP natural air or with supplemental heat drying fans; one large 20 to 25 thousand cfm fan at static pressure of 6 or 7 for size 30 HP motor; 60 feet of 12-inch screw conveyor; 100 feet of 9-inch screw boxing. Please give full details—manufacturer, address, model number, condition. Jones Farm Store & Elevator, Ridgway, Ill., phone 83R3.

FOR SALE—NEW OR USED 80600E or 806000H sewing machine heads, Whizzer conveyors, bagging scales and bins. Write Winborn, Williamsburg, Iowa.

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WANTED: FLAKING AND CRACKing rolls, meal coolers and driers and rollermills. Soybean Digest, Box 319-J, Hudson, Iowa.

WANTED: PRATER DF-9 DUAL pulverizer with 1,200 rpm motor, 2 gyro sifters, Richardson 15 or 25 bu. grain scale and high capacity feed scale, steel 8 x 5 cups or larger elevators, 2-inch steel pipe, and other used machinery. Contact R. G. Gurley, Phone 2303, Selma, N. C.

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FREE 200-PAGE CATALOG ON grain testing and handling equipment. New and used moisture testers. Over 1,000 items. Burrows Equipment Co., 1316-D Sherman Ave., Evanston, Ill.

FOR SALE — ACME, CHIPPEWA, Comet, Flambeau, Grant, Norchief, Ottawa Mandarin soybeans. Minhafer, Andrew, Ransom, Rodney oats. Selkirk wheat. Forrest barley. Registered and certified seed. Eldred Buer & Sons, Canby, Minn.

SEED DIRECTORY

ARKANSAS

Burdette—G. A. Hale, Hale Seed Farms, 8,000 bu. registered Hale Ogden No. 2.

Scott—Robert L. Dortch Seed Farms, 5,000 bu. state registered Dortchsoy 67A, 16,000 bu. registered and certified Dortchsoy 2A, 11,000 bu. registered and certified Dortchsoy 31, 11,000 bu. certified Lee.

Stuttgart—Jacob Hartz Seed Co., Inc., P. O. Box 109, certified and uncertified Lee, certified and uncertified Jackson, certified and uncertified Ogden.

Stuttgart—Spicer Bros. Seed Farms, 730 S. Grand, 1,800 bu. certified Lee.

Twist—J. F. Twist Plantation & Merc. Co., 6,000 bu. certified Lee.

Wynne—Harlan H. Holleman, Rt. 1, Box 129, 400 bu. registered Ogden, 900 bu. certified Lee, 2,000 bu. uncertified Lee, 1,000 bu. uncertified Volstate, 400 bu. certified Jackson.

ILLINOIS

Chicago 22—The Hedge, Joseph D. McNulty, 930 W. Division St., 450 bu. certified Harosoy, 550 bu. certified Hardome.

McNabb—Griffith Seed Co., 1,500 bu. certified Hawkeye.

Springfield—T. R. Creamer Seed Co., P. O. Box 1351, 1,000 bu. uncertified new Roe Wonder bean.

Ursa—Frank W. Lewis & Son, Box 36, 8,000 bu. registered Clark, 3,000 bu. certified Harosoy, 2,500 bu. certified Hawkeye, all bagged 1½ bu. each.

Waterman—Strever Seed & Grain Co., 5,000 bu. certified Harosoy, 10,000 bu. noncertified Harosoy, 2,000 bu. certified Chippewa, 10,000 bu. noncertified Hawkeye.

INDIANA

Evansville 8—J. A. McCarty Seed Co., 526 N. W. Fourth St., good supply certified and uncertified Clark, limited supply certified and uncertified Wabash, limited supply noncertified Perry, limited supply noncertified Kingwa.

Lafayette—Agricultural Alumni Seed Improvement Association, Inc., Rd. 52 N., 1,000 bu. certified foundation Harosoy, 1,500 certified foundation Hawkeye, 1,000 bu. certified foundation Clark, 1,000 bu. certified foundation Lincoln.

Lucerne—Lester W. Elliott, Rt. 1, 900 bu. certified Harosoy.

Remington—Chester B. Biddle, 1,000 bu. certified Hawkeye, 1,000 bu. certified Harosoy.

Walton—Geo. M. Hopper, Hopper Farms, Rt. 2, 500 bu. certified Harosoy.

Woodburn—Virgil Coomer, Rt. 2, 4,000 bu. certified Harosoy, 1,200 bu. certified Clark.

IOWA

Castana—Fred Hawthorn, 2,500 bu. certified Hawkeye, 98% germination, 99.8% pure seed.

MICHIGAN

Saginaw—P. M. Boese & Sons, 4735 East Rd., 1,500 bu. certified Chippewa, 550 bu. certified Blackhawk.

MINNESOTA

Austin—Austin Seed Co., Highway 218 N., 4,200 bu. certified and uncertified Chippewa, 3,800 bu. certified and uncertified Grant.

Bird Island—A. A. Ziller, 500 bu. certified and registered Ottawa Mandarin, 600 bu. certified and registered Capital, 1,000 bu. certified Grant, 500 bu. certified Norchief, 1,000 bu. certified and registered Chippewa.

Hartland—Sig Borge & Son, 300 bu. certified first generation Chippewa, 150 bu. certified second generation Grant.

Herman—Le Roy Backman, 600 bu. certified Grant.

Lake Crystal—Richard E. Wigley, Rt. 2, 500 bu. certified Chippewa.

Madison—Merlin L. Knorr, 250 bu. certified Comet, 450 bu. certified Chippewa, 100 bu. certified Acme.

Sacred Heart—Ray Johnson, Rt. 1, registered Chippewa, 96% germination; certified Grant, 98% germination.

MISSISSIPPI

Hattiesburg—Leo W. Klarr, Ellkay Farms, Rt. 1, Box 184, 4,000 bu. certified Jackson.

MISSOURI

Maitland—John Lewis, 375-400 bu. certified Clark.

St. Louis 24—Cypress Land Farms Co., 8129 Delmar Blvd., 3,000 bu. uncertified Adams, 2,000 bu. uncertified Harosoy, 3,000 bu. uncertified Ogden, 1,000 bu. uncertified Lee, 2,000 bu. uncertified Dorman.

NEBRASKA

Elk City—Wahlgren Seed Farms, 1,000 bu. certified Clark, germination 95%; 600 bu. uncertified Clark, germination 95%.

Litchfield—Joseph Krepcik, 1,000 bu. certified Hawkeye.

NORTH CAROLINA

Selma—Gurley Milling Co., P. O. Box 488, 5,000 bu. uncertified Lee, 2,500 bu. certified and registered Lee, 5,000 bu. uncertified Jackson, 1,000 bu. certified Jackson, 3,500 bu. uncertified Roanoke, 1,000 bu. uncertified Ogden, 5,000 bu. uncertified JEW 45, 2,500 bu. uncertified CNS 4 and 24.

NORTH DAKOTA

Casselton—Geo. C. Howe, Jr., Howe Farms, 2,000 bu. uncertified Comet grown from certified seed.

Casselton—Albert F. Sinner, 1,100 bu. state certified Grant, 700 bu. uncertified Grant, germination 86%, grown from certified seed.

Hillsboro—Harland Safford, Box 443, 60 bu. Norchief, produced from certified seed, germination 91%; 230 bu. uncertified Norchief.

Kindred—Thomas G. Simmons, 1,500 bu. certified Grant.

Wyndmere—A. H. Berg, 1,500 bu. certified Grant.

OHIO

Latty—Ellsworth J. Stoller, Rt. 1, 500 bu. certified Monroe, 500 bu. uncertified Lincoln.

SOUTH CAROLINA

Orangeburg—Shuler & Smoak, Inc., P. O. Box 314, 7,000 bu. uncertified Clemson (CNS).

TENNESSEE

Union City—Claude Botts, Botts Evans L. S. Co., 1,400 bu. certified Ogden.

VIRGINIA

Norfolk 15—Davis Grain Corp., P. O. Box 7595, 500 bu. certified Ogden, 4,000 bu. uncertified Ogden, 1,000 bu. certified Lee, 8,000 bu. uncertified Lee, 500 bu. uncertified Dorman, 500 bu. uncertified Jackson.

Richmond—T. W. Wood & Sons, 11 South 14th St., certified and uncertified Early Wood's Yellow, certified and uncertified Ogden, uncertified S-100. Several hundred bushels of each.

WISCONSIN

Bloomer—Lyle Reetz, Rt. 2 (Auburn), 225 bu. certified Norchief, 190 bu. certified Chippewa, 200 bu. uncertified Backhawk.

Colfax—E. F. Myers, Rt. 2, 225 bu. certified Chippewa.

New Auburn—Kenneth Nelson, Rt. 2, 200 bu. certified Chippewa, 100 bu. certified Norchief.

Ridgeland—Robert E. Rogers, Rt. 1, 200 bu. certified Chippewa, 150 bu. certified Norchief.

South Milwaukee—Henry Mahr, 10820 S. 27 St., 300 bu. certified Blackhawk, 400 bu. uncertified Blackhawk.

ONTARIO

Chatham—St. Clair Grain & Feeds Ltd., Richmond St., 300 bu. registered No. 1 Flambeau, 1,000 bu. registered No. 1 Hardome, 700 bu. registered No. 1 Chippewa.

ADVERTISE YOUR SOYBEAN SEED

Space is available for additional listings in the March and April issues. Cost to subscribers to the Soybean Digest is $3 for the first variety listing and $1.50 for each additional listing.

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IN THE MARKETS

EXPORTS. Preliminary data on U. S. exports of soybeans and soybean oil for November 1957, with comparable data for November 1956 and cumulative totals for the marketings years 1956-57 and 1957-58, reported by Foreign Agricultural Service, U. S. Department of Agriculture.

	Unit	November 1956	November 1957	October-November 1956-57	October-November 1957-58
Soybeans	bu.	10,474,977	15,605,146	20,718,103	25,492,710
Soybean oil:					
Crude	lb.	11,956,250	8,344,836	34,439,550	32,505,941
Refined but not further processed	lb.	2,858,495	2,283,542	7,376,702	7,139,998
Refined, deodorized and hydrogenated	lb.	24,073,897	1,810,873	79,239,658	10,860,003
Total beans and oil, oil equivalent basis	lb.	153,903,889	183,783,754	348,540,681	330,415,898

Soybeans: Inspections for export by coastal areas, and country of destination, December 1957 (1,000 bu.)

Atlantic		Denmark	1,170
Belgium	352	Africa	341
West Germany	377	Korea	157
United Kingdom	312	Israel	338
Holland	759	Other	6
Norway	188	Subtotal	11,188
Poland	532	**Lake Ports**	
Formosa	184	Canada	2,140
Japan	209		
Subtotal	2,913	Grand total	16,241
Gulf		Total January-December 1957	88,944
Belgium	570	Total January-December 1956	68,031
Holland	2,520		
West Germany	2,104		
Japan	3,982		

Note: Data are based on weekly reports of inspections for export by licensed grain inspectors and do not include rail or truck movement to Canada or Mexico. In some cases the ultimate destination of the grain exported is not shown on the inspection reports, therefore, the quantity of each country may vary from official census data which are based on custom declarations.

Soybeans: Inspections for export by ports, and lake shipments to Canada, calendar year 1957 [1] (1,000 bu.)

Atlantic		**Lake Ports**	
New York	162	Chicago	7,816
Philadelphia	2,043	Toledo	2,167
Baltimore	6,387	Subtotal	9,983
Norfolk	7,440		
Subtotal	16,032	**Grand total**	
Gulf		For 1957	88,944
New Orleans	42,753	For 1956	68,031
Mobile	4,237	For 1955	63,480
Port Allen	15,939		
Subtotal	62,929		

[1] Data are based on weekly reports of inspections by licensed grain inspectors for export and do not include rail and truck movements to Canada or Mexico. Agricultural Marketing Service.

Title I, P. L. 480 shipments for July-November 1957

Commodity	November 1957 Metric tons	Unit	Quantity	July-November 1957 Metric tons	Unit	Quantity
Cottonseed oil	1,339	lb.	2,952,000	11,132	lb.	24,542,000
Soybean oil	36	lb.	78,000	7,912	lb.	17,443,000
Linseed oil	24	lb.	54,000	238	lb.	525,000
Tallow	2,010	lb.	4,432,000	18,449	lb.	40,673,000

OIL, MEAL EXPORTS. U. S. exports of cottonseed and soybean oils in November, preliminarily estimated by the Census Bureau at 41.3 million pounds, were less than 60% of October shipments and were less than half those of November 1956.

Cottonseed oil exports in November, estimated at 29.8 million pounds, were 8% below October 1957 and nearly 40% below November 1956 shipments.

Estimated soybean oil exports of 11.5 million pounds in November represented a decline of 70% from the previous month and from November 1956.

U. S. exports of cake and meal in November are estimated at 45.6 thousand short tons, a decrease of nearly 40% from November 1956, but an increase of over one-half from October of last year.

Cottonseed oil, soybean oil, oilcakes and meals: U. S. preliminary estimates of exports in November 1957 and October-November 1957-58, and actual exports November 1956 and October-November 1956-57

Commodity	November 1956	November 1957 Preliminary	October-November 1956-57	October-November 1957-58 Preliminary
	Million pounds		Million pounds	
Cottonseed oil, refined	13.7	4.1	14.1	13.4
Cottonseed oil, refined and further processed	.9	1.9	1.6	3.3
Cottonseed oil, crude	33.9	23.8	45.9	45.6
Total cottonseed oil	48.5	29.8	61.6	62.3
Soybean oil, refined	2.9	2.1	7.4	7.0
Soybean oil, refined and further processed	24.0	1.5	79.2	10.5
Soybean oil, crude	12.0	7.9	34.4	32.1
Total soybean oil	38.9	11.5	121.0	49.6
Total cottonseed and soybean oil	87.4	41.3	182.6	111.9
	Thousand short tons		Thousand short tons	
Cottonseed cake and meal	7.3	5.4	12.5	5.6
Linseed cake and meal	11.9	2.9	18.8	5.2
Soybean cake and meal	55.4	37.3	113.3	64.3
Total cake and meal	74.6	45.6	144.6	75.1

Compiled from official records of the Bureau of the Census.

FACTORY USE VEGETABLE OILS for October and November 1957. Reported by Bureau of the Census (1,000 lbs.)

Factory production and consumption, and factory and warehouse stocks, November 1957-October 1957

	Factory production		Factory consumption		Factory and warehouse stocks	
	November 1957	October 1957	November 1957	October 1957	Nov. 30, 1957	Oct. 31, 1957
Cottonseed, crude	203,699	223,092	146,271	142,251	127,828	108,132
Cottonseed, refined	133,777	130,973	109,610	116,520	113,978	94,699
Soybean, crude	313,366	306,746	252,834	266,133	207,885	194,319
Soybean, refined	240,139	*252,453	231,439	*247,491	120,144	110,813
Hydrogenated vegetable oils—						
Edible:						
Cottonseed	29,153	32,569	28,811	32,050	14,319	14,087
Soybean	113,266	134,167	106,878	121,617	38,658	41,104
Other	6,779	7,503	6,065	5,319	3,411	2,883
Inedible	(2)	(2)	1,021	1,486	1,982	1,758
Margarine [1]	128,788	137,803	(NA)	(NA)	32,205	29,391

* Revised. NA—Not available. [1] Data for stocks exclude quantities held by consuming factories. [2] Not shown to avoid disclosure of figures for individual companies.

Factory consumption of vegetable oils, by uses, during November 1957

	Edible products				Inedible products		
	Shortening	Margarine	Other edible	Soap	Lubricants: Paint and varnish	Lubricants: similar oils [1]	Other inedible [2]
Cottonseed, refined	13,431	721	3,024	(3)	(3)	...	206
Soybean crude	.....	.....	.....	(3)	249	...	1,685
Soybean refined	40,803	9,927	3,992	(3)	5,712	41	7,541
Foots, vegetable, raw and acidulated (100% basis)	.....	.....	.....	1,903	(3)	...	1,574
Hydrogenated vegetable oils, edible:							
Cottonseed	11,482	14,964	.....	.....	.....	.....	.....
Soybean	32,923	72,146	1,795	.....	.....	.....	.....
Other	2,059	(3)	1,337	.....	.....	.....	.....

[1] Includes quantities consumed in lubricants, greases, cutting oils, dielectric oils, core oils, brake fluids, and metal working. [2] Quantities consumed in linoleum and animal feeds are included in the above totals. Data for fats and oils consumed in chemicals and linoleum and oilcloth, which were previously shown separately, are now included in "Other inedible" while quantities consumed in core oils, cutting oils, brake fluids, dielectric oils and metal working, formerly included in this total are now classified in "Lubricants and other oils." [3] Not shown to avoid disclosure of figures for individual companies.

Consumption of fats and oils in fat splitting

	1957			1956	
	November	October	Jan.-Nov. Cumulative	November	Jan.-Nov. Cumulative
Soapstocks					
Vegetable foots	6,284	6,428	83,660	7,687	90,978

U. S. Census Bureau

SOYBEAN STOCKS ON FARMS. Soybean farm stocks on Jan. 1 are estimated at 188 million bushels, the largest of record, by USDA's Agricultural Marketing Service's crop reporting board. These farm holdings were 13% above Jan. 1 last year, the previous high. The heavy stocks were the result of farmers holding a higher than usual percentage and the record 1957 production. Combining was delayed last fall in many areas because of late maturing soybeans and the poor harvesting weather. Included in the farm stocks estimates are some soybeans still expected to be harvested after Jan. 1, in a few areas.

From a total supply of 483.5 million bushels on Oct. 1, 1957 (1957 production of nearly 480 million bushels plus 3.6 million bushels farm carryover) the movement from farms for the October-December 1957 quarter amounted to 295 million bushels. This compares with 284 million bushels for the same quarter in 1956 from a considerably smaller crop. Since harvest of the 1957 crop was generally late, less than the usual amount of the new crop soybeans were processed before Oct. 1. However, this quantity is included in the apparent disappearance for the quarter.

Farm stocks were higher than on Jan. 1 last year in all the main producing areas with the usual heavy concentration in the North Central states, which accounted for about nine-tenths of the U. S. total.

Soybean stocks on farms on Jan. 1 (1,000 bu.)

	Average 1947-56	1957	1958		Average 1947-56	1957	1958
N. Y.	66	67	65	Md.	479	663	874
N. J.	175	389	222	Va.	890	2,039	1,786
Pa.	215	194	130	N. C.	1,295	2,325	2,621
Ohio	7,685	13,114	11,112	S. C.	454	1,336	1,479
Ind.	12,165	21,077	22,257	Ga.	128	269	364
Ill.	24,590	45,049	53,272	Fla.	[1] 21	90	104
Mich.	891	2,100	3,115	Ky.	659	1,167	1,093
Wis.	332	817	1,202	Tenn.	534	713	1,347
Minn.	9,149	26,795	27,950	Ala.	112	231	366
Iowa	16,069	26,000	35,570	Miss.	1,085	2,342	3,506
Mo.	5,413	10,926	8,799	Ark.	1,100	4,074	4,550
N. Dak.	183	1,174	1,668	La.	147	390	550
S. Dak.	570	1,288	1,473	Okla.	75	30	76
Nebr.	614	734	1,480	Texas	1	44	44
Kans.	872	815	615				
Del.	346	794	669	U. S.	86,317	167,046	188,359

[1] Short-time average.

PRICES. Average prices for soybeans received by farmers, effective parity, and support rates, reported by Agricultural Marketing Service (dollars per bushel)

Average farm price			Effective parity	Av. price as percent of parity	National average price support rate		
Dec. 15 1957	Nov. 15 1957	Dec. 15 1956	Dec. 15 1957	Dec. 15 1957	1957 crop	1956 crop	1955 crop
2.06	2.04	2.27	3.05	68	2.09	2.15	2.04

Average farm and parity prices from crop reporting board.

STOCKS. Agricultural Marketing Service's commercial grain stocks reports for close of business on Friday or Saturday preceding date of report (1,000 bu.)

	Dec. 31	Jan. 7	Jan. 14	Jan. 21
U. S. soybeans in store and afloat at domestic markets				
Atlantic Coast	2,999	3,015	3,250	2,960
Gulf Coast	1,381	1,313	1,810	1,337
Northwestern and Upper Lake	4,718	4,860	4,864	4,977
Lower Lake	12,685	12,415	13,080	11,885
East Central	3,470	1,624	1,940	1,889
West Central				
Southwestern and Western	1,420	1,358	1,291	1,225
Total current week	26,673	24,585	26,235	24,273
Total year ago	16,550	16,030	15,967	15,270
U. S. soybeans in store and afloat at Canadian markets				
Total current week	382	493	342	285
Total year ago	620	353	399	337
Total North American commercial soybean stocks				
Total current week	27,055	25,078	26,577	24,558
Total year ago	17,170	16,383	16,366	15,607

Primary receipts (1,000 bu.) of soybeans at important interior points for week ending:

	Dec. 27	Jan. 3	Jan. 10	Jan. 17
Chicago	338	145	59	301
Duluth	13	2	2	—
Indianapolis	38	16	25	26
Kansas City	110	28	31	119
Minneapolis	113	114	90	83
Omaha	17	10	48	33
Peoria	88	55	53	21
Sioux City	19	5	2	13
St. Joseph	20	7	2	2
St. Louis	2	7	15	16
Toledo	190	121	95	109
Totals	948	510	422	723
Last year	637	627	1,023	1,024
Total Chicago soybean stocks	10,722	10,407	9,898	9,781

PRICE SUPPORTS. 1957 and 1956-crop soybeans put under price support through Dec. 15, reported by Agricultural Marketing Service (1,000 bu.)

Quantity put under loan			Quantity of loans withdrawn		Total put under support	Total put under support
Farm stored	Warehouse stored	Total	from support	Purchase agreements	1957-58[1]	1956-57[1]
14,172	26,585	40,757	77	347	41,104	50,822

[1] Total placed under price support is the sum of the total put under loans and purchase agreements through Dec. 15.

1957-crop soybeans put under price support in 30-day periods (bushels)

Nov. 15-Dec. 15, 1957	Oct. 15-Nov. 15, 1957	Nov. 15-Dec. 15, 1956
19,183,522	19,137,040	16,165,831

CANADIAN SOYBEAN PRODUCTION. Acreage, yield and production of soybeans, by provinces, Canada, 1956 and 1957

	Acreage		Yield per acre		Production	
	1956	1957	1956	1957[1]	1956	1957[1]
	—— acres ——		—bushels—		——bushels——	
Ontario	240,000	252,000	22.0	25.7	5,269,000	6,476,000
Manitoba	3,200	4,000	10.0	12.0	32,000	48,000
Totals	243,200	256,000	21.8	25.5	5,301,000	6,524,000

[1] Preliminary. Dominion Bureau of Statistics, Ottawa.

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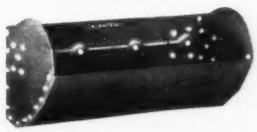

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K. I. WILLIS CORPORATION

MOLINE, ILLINOIS

SOYBEANS, OIL & MEAL

as PRICE SPECIALISTS, we welcome the opportunity to show you how you can make profitable application of our work in your organization.

25th Anniversary

INDUSTRIAL COMMODITY CORP.

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PROCESSING OPERATIONS. Reported by the Bureau of the Census for November and December.

Primary products except crude oil at crude oil mill locations: Production, shipments and transfers, and stock, December 1957-November 1957 (short tons of 2,000 pounds)

	Production		Shipments and transfers		Stocks end of month	
	December 1957	November 1957	December 1957	November 1957	Dec. 31, 1957	Nov. 30, 1957
Soybean:						
Cake and meal	663,254	683,163	675,663	653,687	75,703	88,112
Flour	7,313	9,326	7,447	9,262	1,554	1,688
Lecithin	1,480	1,501	(NA)	(NA)	1,596	1,386

NA—Not available.

Soybeans: Net receipts, crushings, and stocks at oil mills, by states, December 1957-November 1957 (Tons of 2,000 pounds)

	Net receipts at mills		Crushed or used		Stocks at mills	
	Dec. 1957	Nov. 1957	Dec. 1957	Nov. 1957	Dec. 31, 1957	Nov. 30, 1957
U. S.	804,401	1,288,576	852,512	876,810	2,365,891	2,414,002
Illinois	197,383	293,196	285,047	315,265	706,809	794,473
Indiana	42,266	71,254	71,031	79,353	202,050	230,815
Iowa	133,400	174,869	138,209	140,470	248,857	253,666
Kansas	[1]	[1]	10,822	[1]	[1]	[1]
Kentucky	7,969	23,011	21,831	20,288	[1]	[1]
Minnesota	62,386	80,225	58,099	52,396	47,240	42,953
Missouri	37,853	46,645	34,170	30,826	118,327	114,644
Nebraska	[1]	[1]	[1]	[1]	[1]	[1]
No. Carolina	16,623	[1]	4,470	2,432	29,493	17,340
Ohio	52,646	116,634	87,874	98,108	283,765	318,993
Texas	[1]	[1]	[1]	[1]	[1]	[1]
All other	253,875	482,742	140,959	137,672	729,350	641,118

[1] Included in "All other" to avoid disclosure of figures for individual companies.

Soybean products: Production and stocks at oil mill locations, by states, December 1957-November 1957

	Crude oil (thousands of pounds)				Cake and meal (tons)			
	Production		Stocks		Production		Stocks	
	December 1957	November 1957	Dec. 31, 1957	Nov. 30, 1957	December 1957	November 1957	Dec. 31, 1957	Nov. 30, 1957
U. S.	299,940	313,336	105,515	102,376	663,254	683,163	75,703	88,112
Ill.	104,736	114,737	32,999	33,836	217,872	241,525	31,531	34,713
Ind.	24,820	27,730	7,122	7,436	56,246	63,031	8,080	7,032
Iowa	47,736	49,233	12,642	11,485	110,373	112,241	6,914	7,826
Kans.	3,710	[1]	[1]	[1]	8,736	[1]	[1]	276
Ky.	7,768	7,230	[1]	[1]	17,240	15,778	[1]	[1]
Minn.	17,581	19,740	[1]	24,572	44,277	41,648	3,795	8,370
Mo.	12,228	10,868	1,853	1,243	26,320	23,742	2,064	2,734
Nebr.	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
N. C.	1,405	733	988	610	3,494	1,878	1,335	620
Ohio	31,066	34,633	10,217	8,496	70,742	78,366	3,227	6,123
Texas	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
All other	48,890	48,462	39,694	14,698	107,954	104,954	18,757	20,418

[1] Included in "All other" to avoid disclosure of figures for individual companies.

MELLORINE. Production of mellorine and other frozen desserts made with fats and oils other than milk-fat during December was estimated by the Agricultural Marketing Service at 1,715,000 gallons. This was 14% larger than the December output in 1956 and was 12% above the same month in 1955. The combined 12 monthly estimates for 1957 indicate an output of 31,715,000 gallons for the year—3% smaller than the 1956 production and 2% below the total quantity frozen in 1955.

Compared with the December output in 1956, production was larger in all important mellorine-producing states except Illinois, where a sharp drop was indicated and Oklahoma, where it was down moderately. Sharp increases were indicated for all other states, but were most pronounced in Missouri, Alabama and California.

Mellorine production declined only 4% between November and December 1957, compared with a drop of 16% in 1956 and a seasonal decrease of 20% between these months in 1955. Declines occurred in all important mellorine-producing states except Illinois, where it was up moderately, and Alabama, Oregon and California, where the gains were sharp. A moderate decrease was indicated for Texas, but seasonal declines were sharp in Missouri, Arkansas, Oklahoma and Montana.

Production of mellorine and other frozen desserts made with fats and oils other than milk-fat, United States, 1957

	1953 *	1954 *	1955 *	1956 *	Estimated 1957	Change in 1957 from: 1955	Change in 1957 from: 1956
	Thousand gallons					Percent	
January	1,064	1,503	1,758	1,807	1,835	+ 4	+ 2
February	1,162	1,995	1,873	2,057	2,000	+ 7	— 3
March	1,607	2,339	2,681	2,665	2,415	—10	— 9
April	1,767	2,720	2,729	2,694	2,605	— 5	— 3
May	2,201	2,703	3,291	3,469	3,220	— 2	— 7
June	3,139	3,623	3,549	3,677	3,280	— 8	—11
July	2,978	3,904	3,643	3,749	3,960	+ 9	+ 6
August	2,731	3,622	3,825	3,741	3,695	— 3	— 1
September	2,582	3,136	3,095	2,819	2,870	— 7	+ 2
October	2,229	2,443	2,356	2,693	2,335	— 1	—13
November	1,464	1,759	1,925	1,788	1,785	— 7	0
December	1,283	1,632	1,536	1,510	1,715	+ 12	+ 14
Twelve-month Total	24,207	31,379	32,261	32,669	31,715	— 2	— 3

* From enumerations.

STOCKS. Soybean stocks of 380 million bushels in all storage positions on Jan. 1 were the largest of record for the date and were 16% above a year earlier, the previous high, Agricultural Marketing Service reports. Farm, terminal, processors and mill, elevator and warehouse stocks were all above Jan. 1, 1957.

Stocks on Jan. 1 indicated a disappearance during the October-December quarter of 110 million bushels from a supply of 490 million bushels as of Oct. 1, 1957. The supply consisted of a carryover of about 10 million bushels plus the 1957 production of 480 million bushels. During the quarter, 86 million bushels were processed for oil, and around 40 million bushels were exported.

Stocks of soybeans Jan. 1, 1958, with comparisons (1,000 bushels)

Position	Jan. 1 Av. 1947-56	Jan. 1, 1957	Oct. 1, 1957	Jan. 1, 1958
On farms [1]	86,317	167,046	3,623	188,359
Terminals [2]	14,572	16,550	3,539	23,993
Commodity Credit Corp. [3]	133	0	0	0
Processing plants [5]	63,223	70,354	1,493	78,863
Int. mills, elev. and whses. [1] [4]	41,780	73,403	1,236	88,798
Total	206,025	327,353	9,891	380,013

[1] Estimates of the crop reporting board. [2] Commercial stocks reported by grain division, AMS, at 45 terminal cities. [3] Owned by CCC and stored in bins or other storages owned or controlled by CCC; other CCC-owned grain is included in the estimates by positions. [4] All off-farm storages not otherwise designated, including merchant mills. [5] Firms reporting crushings and stocks of soybeans to the Bureau of the Census.

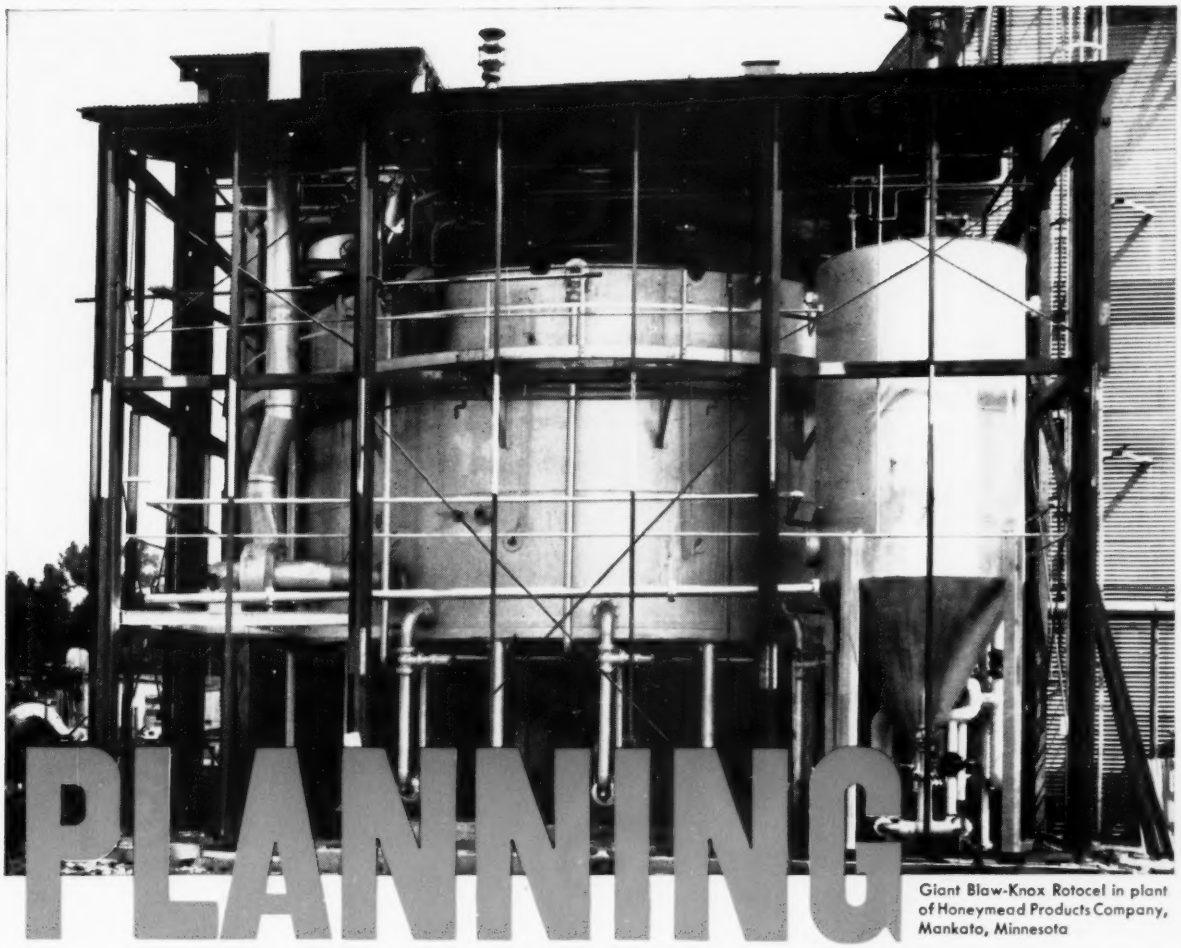
	Off-farm total [1] Jan. 1		Total [2] all positions Jan. 1	
	1957	1958	1957	1958
N. Y.				
Ohio	14,684	16,832	27,798	27,944
Ind.	10,919	11,760	31,996	34,017
Ill.	56,201	60,449	101,250	113,721
Minn.	14,758	22,312	41,553	50,262
Iowa	20,597	31,753	46,597	67,323
Mo.	8,960	7,813	19,886	16,612
Kans.	818		1,633	
N. C.	2,321	1,358	4,646	3,979
Others *	31,049	39,377	51,994	66,155
U. S.	160,307	191,654	327,353	380,013

* Other states and unallocated to avoid disclosing individual operations. [1] Includes stocks at interior mills, elevators and warehouses, commercial stocks reported by grain division, AMS, at terminals, and those owned by Commodity Credit Corp., which are in bins and other storages under CCC control. [2] Off-farm total plus farm stocks.

INSPECTIONS. Soybeans inspected by grades and percent, reported by Agricultural Marketing Service.[1]

Grade	December 1957 [2]		November 1957		December 1956		Oct.-Dec. 1957		Oct.-Dec. 1956	
	1000 bu.	Pct.	1000 bu.	Pct.	1000 bu.	Pct.	1000 bu.	Pct.	1000 bu.	Pct.
No. 1	3,860	11	5,395	12	3,788	13	35,359	20	23,990	16
No. 2	13,536	38	20,233	43	11,992	42	74,997	43	58,309	39
No. 3	13,304	38	15,214	32	7,176	25	45,727	26	36,360	24
No. 4	3,608	10	4,752	10	3,606	13	15,961	9	22,479	15
Sample	974	3	1,363	3	1,867	7	4,345	2	8,992	6
Total	35,282	100	46,957	100	28,429	100	176,389	100	150,130	100

[1] Carlot receipts have been converted to bushels on the basis that 1 carlot equals 1,750 bushels. [2] Of the December 1957 receipts, 3,500 bushels were black, 5,250 mixed, and the remainder yellow soybeans. Inspections of soybeans in December included 7,653,000 bushels as cargo lots, 4,646,639 bushels as truck receipts, and the balance as carlot receipts. Based on reports of inspections by licensed grain inspectors at all markets.



PLANNING

Giant Blaw-Knox Rotocel in plant of Honeymead Products Company, Mankato, Minnesota

switch to world's largest Rotocel doubled production—downtime only 13 days

To maintain a top competitive position in the soybean oil market, Honeymead Products Company decided last year to increase their production.

In 1953 Blaw-Knox had designed, engineered, and constructed a 500-ton-per-day Rotocel in Honeymead's soybean plant at Mankato, Minnesota —which was the largest unit of its type in the world.

In 1956 Honeymead gave Blaw-Knox another contract; this time for a 1200-ton-per-day Rotocel —again the world's largest.

To install this new unit with minimum loss of production time required complex, detailed planning by Blaw-Knox engineers. For instance, before the 500-ton-per-day Rotocel was taken out of production, every piece of pipe to connect the new 1200-ton-per-day unit was measured, cut and threaded. Every bolt and lock washer was on the job.

Results: the switch over was handled so efficiently that only 13 days of production time were lost. Honeymead more than doubled their production and improved their competitive position.

As a further result, Blaw-Knox obtained another assignment from Honeymead—to design, engineer and construct an oil de-odorization system, which also will be the largest of its kind in the world.

This Blaw-Knox experience and know-how—obtained in engineering and constructing 35 solvent extraction plants—are readily available to you. We welcome the opportunity to discuss your proposed projects and to give you our recommendations.

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